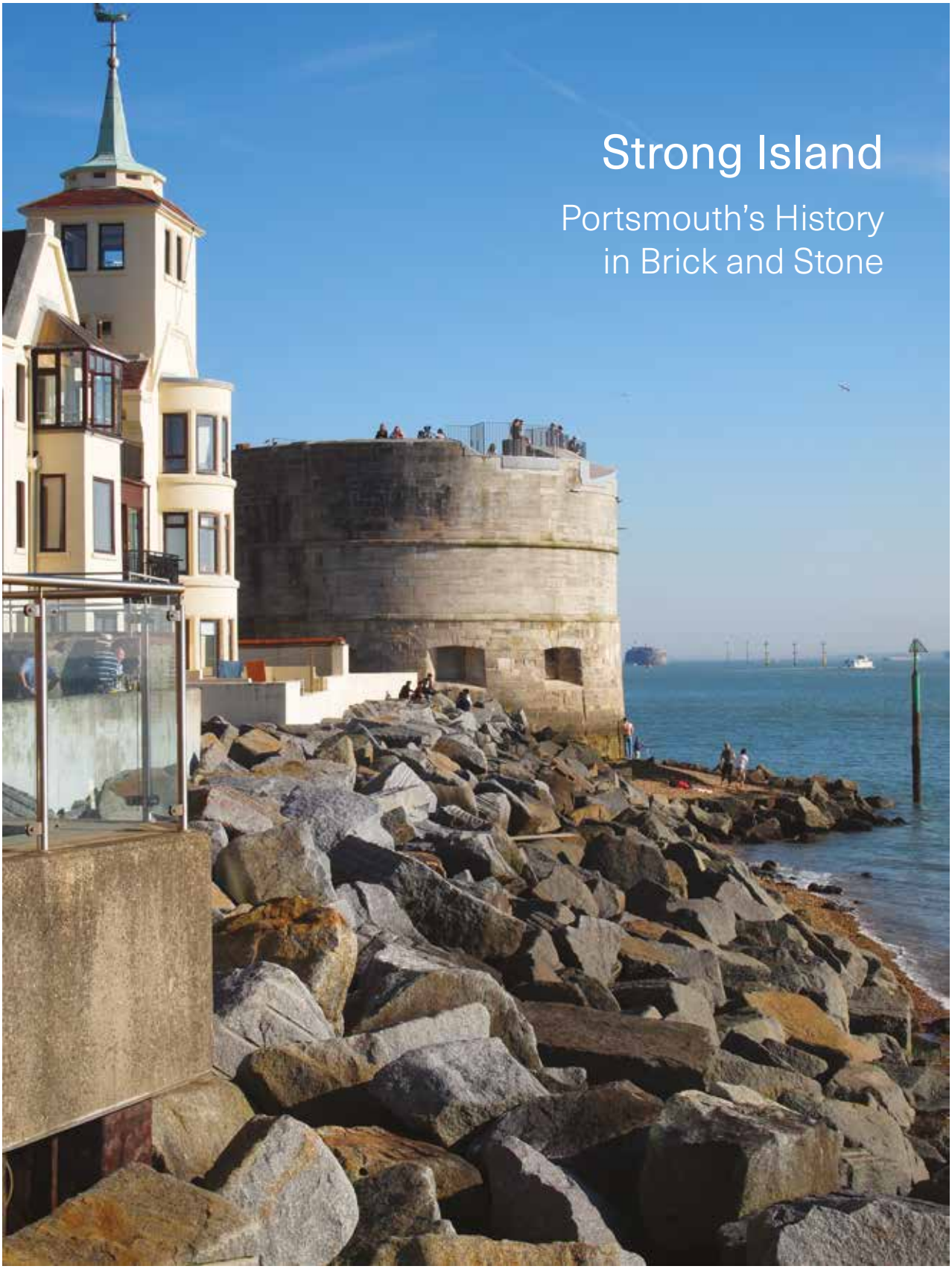
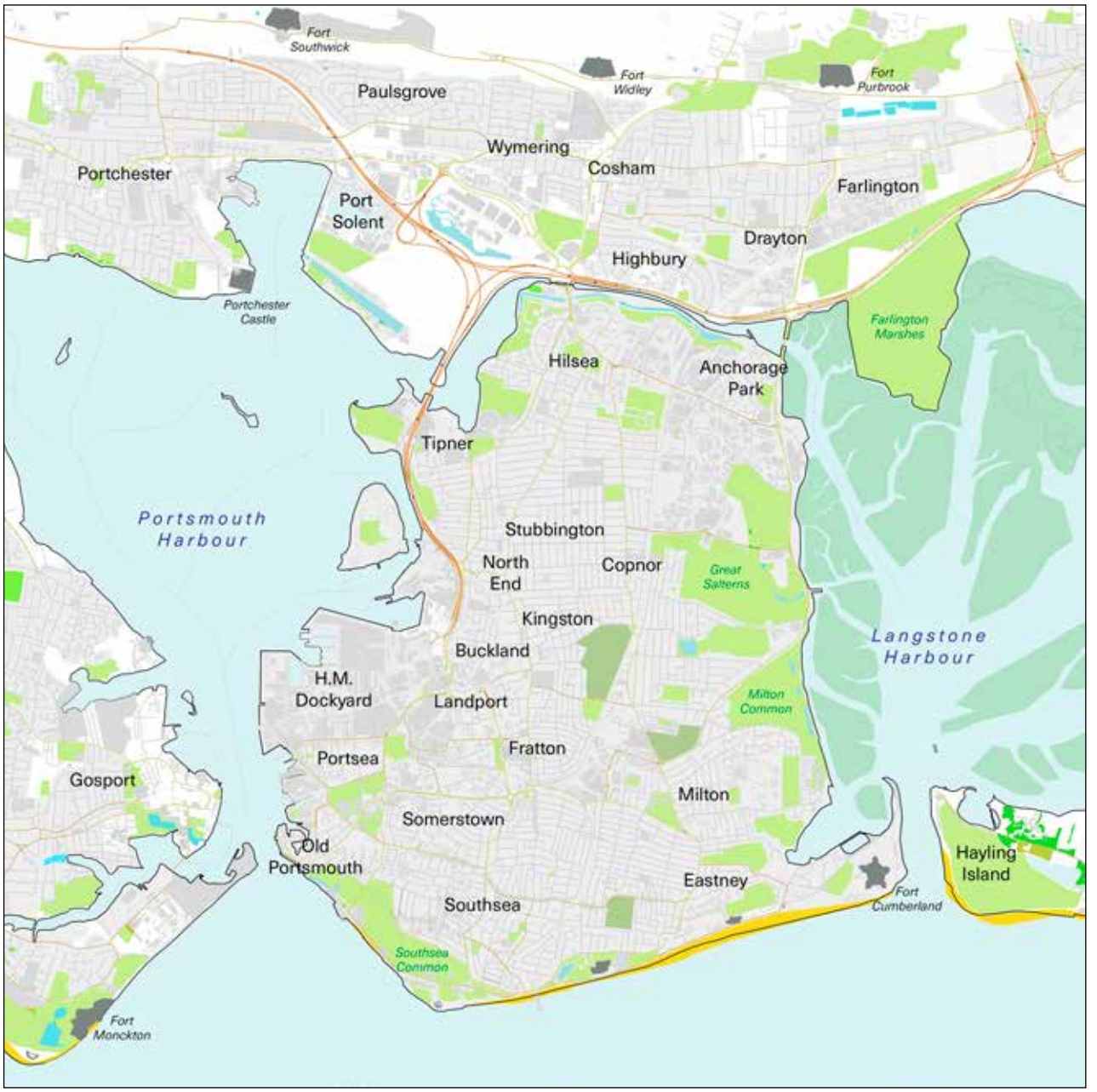


Strong Island

Portsmouth's History in Brick and Stone



Portsmouth and its districts. The city has grown from an original nucleus in Old Portsmouth to encompass a patchwork of distinctive districts, each of which grew up around what had originally been a rural hamlet or village.

Strong Island

Portsmouth's History in Brick and Stone

Paul L. Knox

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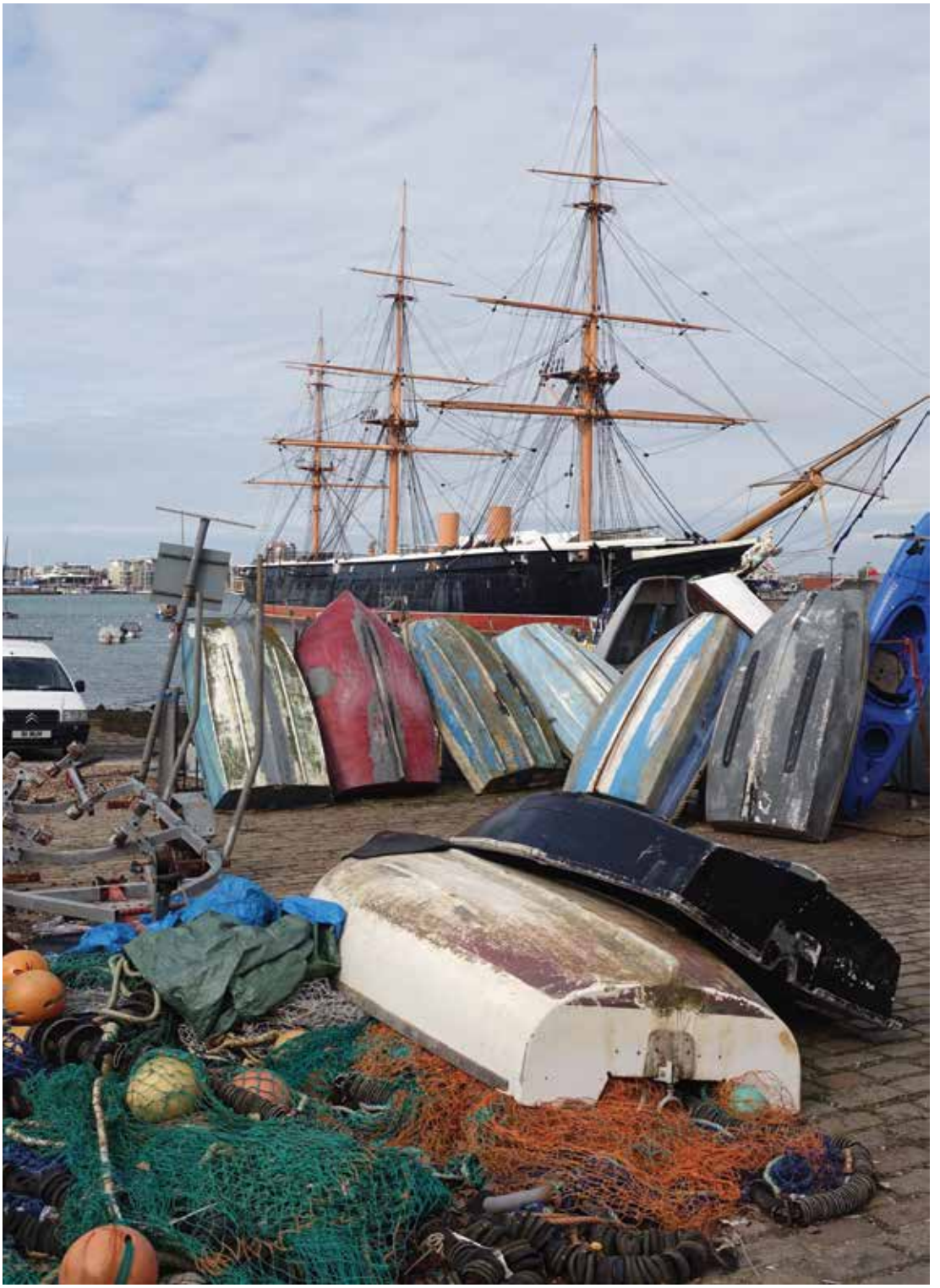


Introduction: Changing Cityscapes

The history of Portsmouth was writ large across the city's face – street after street of tightly-packed terraced houses pushing outward from the naval dockyard ...[1]

[1] Hurley, G., *The Take*. London: Orion, 2010, p. 33.

Each chapter in a city's economic, social, and architectural history leaves its mark in the layout of its streets, the fabric of its buildings, the nature of its institutions, and its sense of place. Many of these features can be understood as the product of the broad sweep of history, and most of them are shared by cities throughout the country. They are the legacy of successive cycles of economic development, of the imprint of changes in transportation and building technologies, and of the effects of demographic, social, cultural, and political change. In addition, most cities have also acquired local landmarks that lend character and identity to their cityscape. Meanwhile, a few cities are the product of an exceptional story that has produced a particularly distinctive cityscape. Portsmouth is one of these cities, with a built environment and sense of place that are the legacy of its highly specialized role in national history and its unique physical setting – as well as the more general processes of urban development that have shaped other British cities.

Like many other provincial cities, Portsmouth grew from a small medieval core, surrounded by villages and hamlets that would eventually become the nuclei of distinctive districts within the modern city. Similarly, Portsmouth's overall development, as with other British cities, reflects the influence of the Industrial Revolution, its buildings recording, on the template of pre-modern streets and field boundaries, the consequences of new modes of economic and social organization, new technologies, and new tastes in architecture. With an economy that for decades was so heavily dependent on Dockyard industries, Portsmouth is in many ways more typical of the industrial north than of other cities in the south of England. As in Liverpool, Manchester, Sheffield and Leeds, speculative developers put up street after street of terraced housing for the new working classes of the Industrial Revolution. Meanwhile, for the new and rapidly expanding middle classes, privacy was paramount and this was expressed in a very different form of development: suburbs of detached or semi-detached villas. Trams and railways allowed for both physical spread and spatial segregation, and the motor car supported the addition of inter-war semis, suburban shopping parades, and industrial estates.

(opposite) HMS *Warrior*, The Hard.

Spithead and the narrow entrance to Portsmouth Harbour. Easily defended, the narrow entrance gives access to a deep and extensive anchorage that was attractive to the Roman navy and, later, vital to the Royal Navy.

As in Birmingham, Bristol, Cardiff, Coventry, Hull, Liverpool, London, and Plymouth, all this was significantly altered as a result of heavy bomb damage during the Blitz. In the aftermath of the Second World War large tracts of heavily damaged properties and poor quality housing were cleared to make way for new development, much of it in the image of the Welfare State: social housing estates, slab blocks, midrise flats, modern schools, and clinics. Then, with the precipitous retreat of the Welfare State from the late 1970s the development of the city has been driven, as in most other provincial cities, by a mixture of regeneration and gentrification. With each of these successive phases of urban growth, surviving tracts of early cityscapes became hybridized as new buildings replaced old, plots were amalgamated or subdivided, and street layouts were modified. Portsmouth's built fabric has been adapted or redeveloped as generations of families have gone through their life cycles; as successions of socio-economic and ethnic groups have moved in or moved on; as lifestyles have changed; and as the decline of Dockyard industries has been succeeded by new patterns of economic activity.

The finer grain of Portsmouth's cityscape reflects the succession of national architectural trends that are evident in every provincial city. Pre-industrial wooden buildings gave way to the strict symmetry of plain brick frontages, tall windows, and pedimented doors of Georgian architecture, and this in turn gave way to stuccoed Italianate and neoclassical styles. Victorian aesthetics were reflected variously in regressive Gothic Revival, Arts and Crafts, and Domestic Revival styles, while industrialization and consumer culture brought entirely new kinds of buildings and land uses: factories, warehouses, institutional buildings, department stores, tea rooms, dance halls, theatres, hotels, public gardens, sports stadiums and amusement parks. Elements of all of these survive in every city, amid more recent layers of modern urban development.

Portsmouth's Distinctiveness

But beyond these broad parallels with other British cities Portsmouth's anatomy and cityscape are distinctive, shaped as much by a unique physical situation and the tides of war and peace as by economic, social, and architectural history. The unique configuration of the coast formed what was to become one of the world's greatest anchorages. Sheltered by the

Isle of Wight, the Solent's twin entrances create an advantageous tidal pattern at Portsmouth, with a seven-hour flood and a five-hour ebb that scours the narrow entrance channel of Portsmouth Harbour as water retreats from the 15 square miles of its deep water and creeks. In the Solent itself, the course of the drowned Quaternary-era Solent River provides a deep-water channel that is convenient for shipping, while the extensive offshore shallows of Horse and Dean Sands and No Man's Land ensure large areas of comparatively calm water either side of the deeper anchorage of Spithead.

Big Harbours, narrow entrances. A unique physical geography was the basis for a distinctive setting for urban development.

The harbour has been an important strategic asset for centuries. Successive monarchs fortified the harbour entrance and the town. Walls and ramparts were extended, updated and renewed with the onset or the threat of every new round of hostilities. Surrounded on three sides by tidal water, constrained on the fourth by a creek and the steep backdrop of Portsdown Hill and with building land limited by marshy edgelands, the city was never able to spread out around a central core in the kind of radial pattern typical of other cities. Assymetrical in shape and multi-centred in layout, it was forced to be one of the most densely inhabited cities in Britain. Its fabric was strongly influenced by successive epochs of national geopolitical history, framed within fortifications and developed mainly to service the naval base. For centuries, Portsmouth's whole economy was geared to supporting the Naval Dockyard. In the most formative age of the city's development, the occupational and wage structure of the Dockyard – one of the largest and most innovative manufacturing complexes in England in the mid-nineteenth century – meant that modest terraced housing became the overwhelmingly dominant element of the cityscape. Middle-class districts and affluent enclaves, on the other hand, were noticeably under-represented.

Portsbridge Creek. Portsea Island's natural separation from the mainland has been reinforced by a nineteenth-century moat and bastions and a 20th century motorway.

Under Admiralty jurisdiction the Dockyard was largely self-contained and so failed to spark the kind of capital accumulation typical of other industrial cities. Government-run, the Dockyard did not generate profits that could be channelled into local investment. Nor were there many opportunities for Portsmouth entrepreneurs to expand and prosper by way of Dockyard supply contracts. For reasons of

economy and quality control the Admiralty followed a policy of self-sufficiency as far as possible, engaging outside contractors only for basic raw materials. For much of the nineteenth century, convicts were deployed in many of the Dockyard labouring jobs that would otherwise have gone to local men, and even the Navy's beer and biscuits were made in government establishments. When in 1851 the Town Council proposed a scheme for the construction of commercial docks with an eye to the development of new industries in the town, the Board of Ordnance ruled it 'entirely inadmissible'.

As Portsmouth geographer R.C. Riley noted, 'It is surely no accident that there is in and around Portsmouth a notable absence of the large houses and surrounding estates so frequently found on the fringes of industrial towns fashioned in the nineteenth century; there are no parks created from gardens of the rich, nor a university endowed by philanthropically-minded industrialists.'[2] Similarly, the elaborate industrial and commercial buildings so characteristic of other industrial cities, built to signal the pride and success of Victorian and Edwardian entrepreneurs, are few and far between in Portsmouth. On the other hand, a distinctive counterpoint to the city's terraced housing, military depots, and fortifications was provided by the emergence of the stuccoed hotels and guest houses and ornamental gardens of Victorian and Edwardian Southsea. For a long time, Portsea Island was Janus-faced, presenting at once as naval dockyard and as seaside resort. Nevertheless, it has been the martial dimension that has been dominant and enduring in the city's self-identity.

[2] Riley, R.C., *Portsmouth Papers*, 25, 1976, pp. 9 and 4-5.

Sense of Place

Portsmouth is one of the most anomalous cities in Britain. Packed as it is on to Portsea Island, one of the most densely populated urban areas of Europe, it is also one of the most pugnacious. ... This is a city whose fortunes are inextricably connected to war. For centuries, Portsmouth's life has been that of the Royal Navy and a dockyard that once employed 28,000 but now has 1,800 on the payroll. It is a city that needs war, a martial city.[3]

[3] Hurley, G., quoted by Vulliamy, E. and B. Oliver in 'Up Pompey', *The Observer*, August 3, 2003.

The cumulative legacy of cityscapes appeal as much to the imagination as to the eye. They contribute to people's collective memory and provide powerful emotional and cultural symbols as well as an overall frame of reference for experiences and memories. Cityscapes are layered with symbolic meaning: not only, in Portsmouth's case, the fortifications, monuments, and visible traces of its distinctive maritime history but also the everyday symbolism of civic and commercial buildings and different grades of housing. They

provide the physical context in which everyday, 'commonsense' knowledge and attitudes are developed. People's experience of everyday routines in familiar settings leads gradually to a pool of shared meanings: neighbours share experiences of their physical environment and become familiar with one another's vocabulary, speech patterns, and humour. This carries over into people's attitudes and feelings about themselves and their locality and to the symbolism they attach to that place. When this happens, the result is a distinctive sense of place that becomes part of a city's collective identity.

People's sense of place also includes a consciousness of links with the wider world. The character of a city depends not only on its internal history; it also depends on the relations it has had with other places. This is particularly important in Portsmouth, with its history as a site of conflict on the front line of both defence and aggression. There are several aspects to this. Whenever the country was at war, Portsea Islanders were acutely aware that at almost any time an attempt might be made by the enemy to seize the naval base and destroy the town that sustained it. With many families having someone serving in the Navy, the loss of a ship could be devastating, and news of a sinking would spread like wildfire through the city. During the First World War, Portsmouth raised three voluntary battalions, each 1,100 strong; not one battalion returned. During the Second World War, civilian losses amounted to nearly 1,000 dead and more than 1,200 seriously injured. As in the First World War, the city sent many to serve in the armed forces, and some battle losses were particularly keenly felt. HMS *Hood,* a 'Portsmouth' ship with many of the crew from the city, was lost in May 1941 during a battle with the *Bismarck*. Of the 1,415 sailors on board, only three survived.

The net result is a distinctive sense of place that is allied to a resilient and hard-edged local culture

The net result is a distinctive sense of place that is allied to a resilient and somewhat hard-edged local culture. While the devastating raids on the town in the fourteenth century (it was attacked in 1337, 1369, 1377, and 1380 by the French) have long been lost to popular memory, there are plenty of reminders of a long list of formative traumatic events that includes the Napoleonic Wars and the exigencies associated with being the Navy's principal base during two world wars. They take the form of ramparts, forts, and war memorials. They are amplified by the icons of the heritage industry: the *Mary Rose*, HMS *Victory*, HMS *Warrior*, the D-Day Museum, and the Royal Marines Museum. Pub names and street names provide another set of reminders of the city's distinctive history. Among Portsmouth's surviving pubs are the *Admiralty Tavern*, the *Alma Arms* (after the victory of the British and French forces over those of Russia at the battle of the Alma in the Crimean War), the *Duke of Wellington*, the *Keppel's Head*, the *Lord Hood Tavern*, the *Lord Nelson Arm*s,

the *Old Royal Oak*, the *Lucknow Tavern*, the *Ordnance Arms*, the *Rodney's Head*, the *Royal Oak*, the S*hip Anson*, the *Ship Leopard,* and the *Trafalgar Arms*. Among the many street names with naval and military connections are Benbow Place, Beresford Road, Collingwood Road, Curzon Howe Road, Duncan Road, Duncan Street, Duncan Square, Duncan Terrace, Frobisher Grove, Hawke Street, Napier Road, Nelson Road, St Vincent Road – all named after admirals. Campbell Road, Havelock Road, Inglis Road, Outram Road, and Wilson Grove were all named after soldiers who led the suppression of the Indian Mutiny in 1857; and so on. The city's dependence on the Navy and its vulnerability as a strategic target have meant that successive generations lived with both physical danger and personal loss.

Visible Traces: Layers of History

Medieval Portsmouth occupied a very small area in the southwestern corner of Portsea Island. Now known as Old Portsmouth, it clung to a spit of land that protected the small anchorage that is now known as the Camber. As the town grew, it spread north and, eventually, east. Whereas the growth spurts of most towns were dictated by building cycles associated with national economic booms and recessions, Portsmouth's boom-and-bust cycles were driven by episodes of war – or the threat of it – and peace. The first significant building boom was triggered by the naval expansion and dockyard activity associated with the growth of the British Empire in the first quarter of the eighteenth century. Subsequent booms were associated with the growth of Nelson's navy during the Napoleonic Wars, the shift to ironclad ships and the arms race with the French in the 1860s, the arms race and eventual conflict with Germany that began in the 1880s, and the rearmament precipitated by the Second World War. Marked recessions coincided with the end of the Napoleonic Wars, the winding down of the arms race of the 1860s, the peace of 1918 and the peace of 1945. During these economic downturns, cheap land on the periphery of the town was taken up for institutional or recreational use, so that the locations of barracks, hospitals, prisons, asylums, workhouses, cemeteries and so on tend to mark the fringe of the built-up area during one downturn or another. Subsequent residential development then had to leapfrog this fringe belt.

Portsmouth's boom-and-bust cycles were driven by episodes of war, or the threat of it, and peace

By the 1930s the supply of developable land on Portsea Island had been all but exhausted, so new growth had to spill over to the mainland: east and west along the foot of Portsdown Hill and over the hill itself to Purbrook and Waterlooville, along the main road to London. After the Second World War the first wave of suburbanization was driven by the growth of the welfare state, with overspill estates in Leigh Park and Paulsgrove. On Portsea Island, it was a

question of piecemeal reconstruction rather than new development, at least until the closure of the airport and some industrial sites made some brownfield sites available for development and several land reclamation schemes had reached the point where building could begin.

Much of the city's past development has of course been demolished and overwritten by new building; in some cases several times over. But some elements are more durable than others, some are more cherished, and some are simply bypassed or left unchanged for long periods. Broadly speaking, the legacy of Portsmouth's history can be understood in terms of five principal layers: pre-modern (ramparts, castles, forts, early road layouts and village nuclei – Chapter 1); Georgian (dockyard development and early suburbs – Chapter 2); Victorian and Edwardian (industrialization, infrastructure development, seaside development and pre-automobile suburbs – Chapter 3); inter-war (suburbanization and wartime destruction – Chapter 4); postwar reconstruction (Chapter 5); and regeneration (Chapter 6).

The surviving visible traces of these layers tell Portsmouth's story

The surviving visible traces of these layers tell Portsmouth's story. It is a story that features buildings and localities of historic interest, but only as they explain and illustrate the city's development and its character and the ways in which today's cityscapes are either typical or distinctive in context of British urban history. In terms of architects' and architectural historians' snooty distinction between architecture and 'mere building,' it is mainly about the latter. Indeed, Nikolaus Pevsner, the condescending doyen of British architectural history, flatly opined that 'For civilian architecture ... Portsmouth is hardly notable' and that 'Of the civilian architecture of the last hundred years nothing positive can generally be said'. An exception to the 'muddled and visually squalid' cityscape was allowed by Pevsner for the Tricorn development of the 1960s ('really exciting, ... a splendid composition ... romantic' with 'a fascinating skyline')[4] that was regularly voted as the ugliest development in the United Kingdom before its demolition in 2004. So much, then, for architectural opinion. Rather than seeing the built environment simply as an expression of 'notable' design – or the lack of it – this book examines the entire tapestry of Portsmouth's built environment as a narrative of economic, social, cultural, and geopolitical history.

[4] Pevsner, N. and D. Lloyd, *The Buildings of England. Hampshire and the Isle of Wight*. London: Yale University Press, 2002, pp. 391-392 and 458-9.

Pre-Modern Traces 1

The hospitable combination of well-drained south-facing slopes with freshwater streams and easy access to sheltered tidal waters supported a small population in the Portsmouth area from the earliest times. We know from archaeological digs that there was a Stone Age flint-working site (from 200,000-125,000 BCE) at the foot of Portsdown Hill. Bronze Age artifacts (1200-700 BCE) – axe heads and necklaces – have been found on both Portsdown and Portsea Island, and an Iron Age shrine (400-100 BCE) was found on Hayling Island. Today's landscape contains no visible traces of these inhabitants: their imprint on the land was slight, and long since buried by modern urban development. Nevertheless, the contemporary cityscape does contain many pre-modern elements and some of them are spectacular, lending character and distinctiveness to the city.

The oldest surviving element is one of the most spectacular of all: Portchester Castle, the most completely preserved Roman fort north of the Alps. The Romans had a knack of identifying the most promising topographic sites and strategic locations throughout their empire. They were the first to identify and exploit the trio of great natural harbours: Portsmouth, Langstone and Chichester, with their narrow entrances and strategic situation at the midpoint of the south coast. The invading Augusta Legion (43 CE) developed a site at Chichester as a supply base, building roads linking it to London via Stane Street and to the Fosse Way and the Midlands by way of Silchester and the Ermin Way. When Saxon raiders began to threaten coastal Britain, along with Roman Armorica (i.e. Brittany and Normandy), and Belgic Gaul (the region centred on what is now Belgium) in the third century, emperor Diocletian ordered the construction of a chain of forts on both sides of the English Channel. These were the so-called Saxon Shore Forts, and the fort at Portchester, established around 285 CE, was one of the first.

The oldest surviving element is one of the most spectacular of all: Portchester Castle

Located safely in the northern reaches of Portsmouth Harbour and known as Portus Adurni, the waterside fort was used as a base for Classis Britannica, the Roman Channel fleet under the command of Marcus Aurelius Carausius. The fort served as a garrison for a reaction force of armed galleys designed to intercept raiders. Carausius soon eliminated the threat of Saxon raiders and promptly used his military strength to set himself up on a grander scale. Before Rome could send an expedition to rein him in, Carausius installed himself as emperor of Britain and had his own coinage minted. It did not last long: he was assassinated by a rival in 293 CE. After the arrival of an expeditionary force from Rome, Portus Adurni reverted to its role as the principal base of

(opposite) The King's Bastion, Long Curtain and moat, Old Portsmouth.

Portchester Castle. The original fort was laid out in the classic Roman shape – perfectly rectangular – on a 9-acre site. The 219-yard-long outer walls of flint bonded with limestone mortar were eighteen feet high and nine feet thick. The walls were surrounded by a double ditch and defended by 20 projecting D-shaped bastions (of which 14 remain) that could be used as platforms for heavy catapult artillery.

the Roman Channel fleet until the Romans had retreated from Britain. The Roman military began to pull out in 388 CE to bolster the defence of Gaul and by 410 CE they had left Britain altogether.

Inside the fort, subsequent rounds of occupation have added their own visible traces. By 500 CE Anglo-Saxon settlers had moved in to south Hampshire, taking over the fort as a stronghold against Viking raids and calling it Portus Ceaster. The Saxons built a village at Portchester, eventually to become part of the Anglo-Saxon kingdom of Wessex. By the 9th century the fort had become part of a network of fortified settlements – burhs – organized by King Alfred the Great to resist Viking incursions. Like the Romans, the Saxons used Portchester as a base for a naval rapid reaction force: there is a record of a battle in the Solent in 897 between Alfred's ships and marauding Viking longboats.[5] Inside the fort, Roman buildings were replaced by Anglo-Saxon structures. The ruins of a fancy 10th-century residence with a hall and a tower still stand in the south-western corner of the fort, surrounded by traces of a ditch, a curtain wall, and several other medieval buildings.

[5] Lavelle, R., *Alfred's Wars: Sources and Interpretations of Anglo-Saxon Warfare in the Viking Age*. Suffolk: Boydell Press, 2010, p. 293.

With the arrival of the Normans in the final months of the eleventh century the political geography of Britain was realigned and Portchester, across the Channel from Normandy itself, became even more important as a strategic location, functioning as a garrison and stronghold for the Norman army of occupation. It also became an important transit point for royalty and nobility travelling across the Channel. Stone walls replaced Saxon timber palisades in the 1130s, around the same time as Henry I granted land within the walls of the fort for a monastery. Their refectory and dormitory are gone but the Norman church still stands in the south-east corner of the fort. Within a couple of decades the priory had moved out, having acquired more extensive lands north of Portsdown Hill, at Southwick.

Portchester functioned as an important transit point for royalty and nobility travelling across the Channel

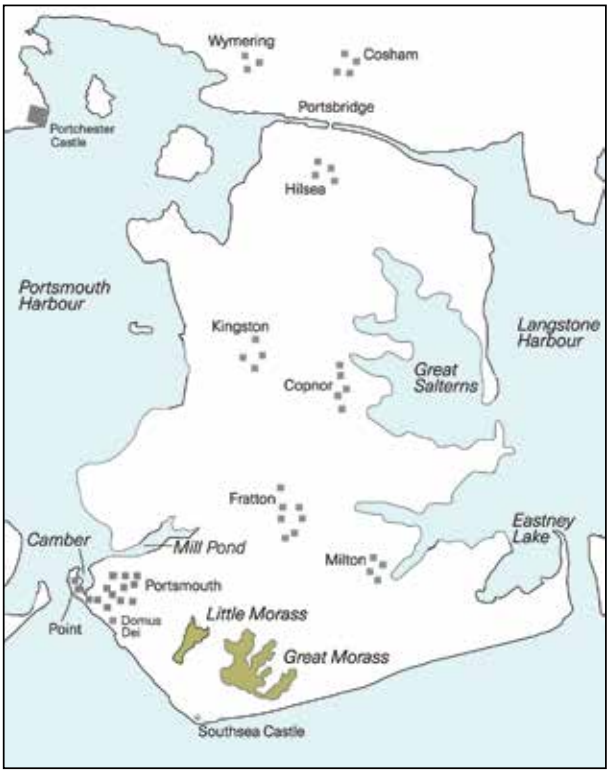
Meanwhile, in the opposite corner of the fort, Norman nobility built a grand hall, apartments, a substantial keep (98 feet high with walls eight feet thick), and a moat that filled with water at high tide through a sluice in the Roman wall. Portchester was now a castle, with a resident constable and retinue of knights. Successive monarchs – Henry II (1154-89), Richard I (1189-99) and John (1199-1216) – adopted Portchester as a royal stronghold, using it variously for imprisoning important captives, as a point of embarkation and return for travel to the Continent, and as a base for hunting and entertainment.

Early Settlement

Portsmouth, meanwhile, was also being colonized by Norman nobility. By the time of the Norman invasion, most of Portsea Island had been acquired by Southwick Priory. It was of little value: swampy lagoons and marshland – the Great Morass and the Little Morass – had formed behind shingle beaches along the southern shore, while much of the shoreline along both Portsmouth and Langstone harbours was also soggy. A few farms – Penhale Farm, Eastney Farm, Priory Farm, Milton Farm, Marmion Farm, and Farlington Marsh Farm – struggled along on the poor soils of the London Clay and sterile Paleogene sand and gravel that form the dominant surface geology of the island.

Nearby were two relatively prosperous villages, Portchester and Ferne Ham (Fareham), both close by a creek where ships could easily load and unload their cargoes. Fareham had a nearby stream (the Wallington) with sufficient flow to support watermills while Portchester enjoyed the immediate protection of the castle garrison. By the 13th century both of them had weekly markets and an annual fair. Fareham had a small fishing fleet and boatbuilding industry and served as an exporter of timber and importer of wine. Most other villages – Buckland, Copenore (Copnor), Cossa's Ham (Cosham), Drayton, Farlington, Frodintone (Fratton), Hilsea, Kings Tun (Kingston), Langstone, Milton, and Wymering – were situated on better-drained patches of gravel, linked by a network of country lanes. Each held no more than a hundred people, living in simple wooden huts with thatched roofs. While the buildings are long gone these early settlements were tiny nuclei of what would eventually become the focal point of distinctive districts within the emergent multi-centred city.

Pre-Modern Portsmouth. Settlement was sparse, and the coastline very different from today's.



Meanwhile, the core of the city itself was established by a Norman merchant, Jean de Gisors, who saw the potential of the manor of Buckland in the southwestern corner of the island. Buckland contained the spit of land that simultaneously commanded the entrance to the harbour and provided the sheltered anchorage of the Camber. De Gisors purchased the manor from its previous owners, the de Port family, in 1180 and promptly established his civic credentials by donating land to Southwick Priory for the erection of a chapel in honour of the martyred Archbishop Thomas of Canterbury. The chancel and transept of the chapel are incorporated

into the present-day cathedral and the surrounding grid of streets reflects the layout of de Gisors's new town. Richard I (who had confiscated the manor as punishment for de Gisors's support of his brother, John) granted the town its first charter in 1194 in recognition of the town's strategic value as the gateway to Normandy. Portsmouth's distinctive star-and-crescent symbol is an acknowledgement of Richard's role in establishing the town: it was part of a coat of arms that Richard had adopted as a sort of symbolic trophy from a Cypriot ruler he had defeated en route to the Crusades.

It was Richard who began the process of creating a naval dockyard at the Camber. His successor, John, followed up in 1212 by ordering a new defensive wall to protect it. That same year the Bishop of Winchester established a *Domus Dei* just beyond the defensive walls: a chapel with a hospital for the sick and elderly and a hostel for pilgrims travelling to the Crusades or to one of the important Medieval shrines in Winchester and Chichester. In 1254 the Great Council of England met there. Meanwhile, in times of peace the port's geographic situation lent itself to what for the time was a significant commercial function. Large quantities of wheat and considerable amounts of wool were exported through Portsmouth to France and Spain, while the chief import was wine, most of which was brought from Bayonne and Bordeaux.

Portsmouth's Star and Crescent emblem. The motif was adopted as a compliment to King Richard I and his Chancellor, William de Longchamp, for the favours shown to the Town.

Portsmouth's star-and-crescent symbol is an acknowledgement of Richard's role in establishing the town

Royal Garrison Church. A Scheduled Ancient Monument, the church dates back to 1212-20 and was originally part of the Hospital of St. John and St. Nicholas (the *Domus Dei*). Restored in 1866-68, it is now preserved as a partial ruin following bomb damage in the Second World War..

Portsmouth Cathedral. The chancel and nave of the Cathedral date back to 1188, part of a chapel built in honour of Thomas à Becket by Southwick Priory on a site granted by Jean de Gisors. Transept altars and the churchyard were added in 1196 and in 1693 a new nave and west tower were completed. The landmark twin turrets and striking west doorway were not fully completed until 1991. The cathedral itself was originally hemmed in by buildings and only post-war slum clearance enabled the grounds to expand to their current size.

(left) The north door into the nave features a segmented head with a skull, an hourglass on its side and an inscription reading Memento Mori; below is a keystone feature-with the town's star-and-crescent motif and the date 1691.

Defender of the Realm

During the thirteenth century Portsmouth was used as a rendezvous for expeditions to Normandy and Gascony, with men, horses, provisions, and arms brought by sea from around the country, and from this time on the town became England's principal mustering point for fleets transporting armies to the Continent. Notably, Edward III brought an army of 10,000 archers, 4,000 Welsh light infantry and 3,000 knights to Portsmouth in 1346 before leaving for France and victory at the Battle of Crecy with a fleet of 700 ships. In 1386 Richard II saw off an expedition to Spain made up of 20,000 men-at-arms and 8,000 archers. Later in the Hundred Years War Henry V reviewed a fleet of 1,500 ships that sailed for France with 8,000 archers and 2,000 knights and men-at-arms who would win the Battle of Agincourt. Portchester Castle was in regular use during the Hundred Years War: Edward III, the Black Prince (Edward III's son), Richard II, and Henry V all stayed there while armies mustered and fleets assembled, and the castle hosted the grand arrival on English soil of Henry VI's French bride, Margaret of Anjou, in 1445. But by the mid-1300s the arrival of gunpowder and cannons had made Portchester Castle obsolete as a defensive entity and it morphed into a grand palace. Around the south and west sides of the inner bailey are the remains of a Great Hall, a series of substantial residential apartments, and kitchens built by Richard II between 1396 and 1399.

Gradually, Portsmouth became one of the most heavily defended towns in Europe

With English armies in France, Portsmouth was of increasing strategic importance and the attributes that made Portsmouth a suitable assembly point for outward-bound expeditionary fleets also made it a key target for enemies. This was demonstrated when the French repeatedly raided and burnt the town: in 1337, 1338, 1369, 1377, and 1380.

Every French attack underscored the need for improved defences. A military governor was appointed for the town in 1369 and in 1386 a commission was appointed to survey the area with a view to its defence. The immediate outcome was simply the construction of an earth and timber rampart and a moat to enclose the town, but Portsmouth gradually became one of the most heavily defended cities in Europe. To compensate for the obsolescence of Portchester Castle, towers were built on either side of the narrow harbour entrance. A heavy chain boom slung between them allowed access into the harbour anchorages to be controlled. Both towers were originally built with timber but in 1494, with Henry VII on the throne and English soldiers back in France, the tower on the Portsmouth side – the Round Tower – was rebuilt in stone. A second tower – the Square Tower – and adjacent stone bulwark were built 190 yards to the south to protect the town on the seaward side. In 1495 the country's first dry dock was built at the northern edge of the dockyard to allow the navy's ships to be repaired and cleaned. By 1500 the dockyard

The Round Tower. The stone tower, built in 1494, replaced an earlier wooden structure and was reinforced in the 1500s with six gunports for cannon. As an additional defence, an iron chain was stretched across the harbour mouth from Capstan Square, next to the Round Tower, over to the Gosport side. This chain boom was used for hundreds of years and a similar defence was installed during the Second World War.

had acquired a storehouse, forge, and smithy and work had started on the *Sweepstake*, the first warship to be built at the Portsmouth yard.

The threat of a combined Franco-Spanish invasion following Henry VIII's breach with the Pope in 1534 brought an urgent need for a bigger navy and stronger defences. Henry had already expanded his standing fleet from five to thirty, including the *Henri Grâce a Dieu* and the *Mary Rose*, the pride of the fleet. After the Reformation, he ordered a further 27 ships, using revenues from the Dissolution of the Monasteries. Portsmouth's unique geography once again came into play, since it was only here that huge new ships like the *Henri Grâce a Dieu* could get in and out at all tides, and it was only one night's sailing from Newhaven, Dieppe, Harfleur, and the Seine.

The enlarged fleet led to a corresponding increase in the number of workshops and storehouses in the dockyard and required a permanent shore-based administration to coordinate everything. Victualling a large standing fleet also became a challenge, and Henry ordered the building of several bakeries to serve the Navy, including the Anker bakehouse in St Thomas's Street. In 1525 there were also five royal breweries: the Rose, the Lion, the Dragon, the White Hart, and the Anchor. Portsmouth's ramparts were repaired, mainly

The Square Tower. When the Round Tower was rebuilt in 1495 an additional fortification, the Square Tower, was added nearby as a residence for the Governor of the town. In 1584 it was converted to a store for gunpowder. It was re-faced in 1827, concealing the original gun ports.

to ensure the security of these breweries, bakeries and storehouses rather than as protection for the townspeople. A new bastion was constructed to protect the landward entrance to the town opposite the northern end of High Street, and two small forts were established on the shore, one on the site of what would later become Lumps Fort and the other at Eastney. The *Domus Dei,* which had been surrendered to Henry VIII's Commissioners in 1540, became an armoury and its hospital was converted as a residence for the town's military governor.

More of the proceeds from the sale of the monasteries were used to fund an ambitious scheme of castle building along the English coast from Cornwall to Yorkshire. Around the Solent area, Hurst Castle was built to defend the Needles passage, Sandown provided cover for the Channel approaches, fortifications at East and West Cowes covered Spithead, Calshot Castle oversaw Southampton Water, and Southsea Castle guarded the stretch of Solent used by ships negotiating the deepwater approach to Portsmouth Harbour. Southsea Castle incorporated the latest continental ideas on the lay-out of artillery forts and it was brand new when a French invasion fleet approached Portsmouth and landed on the Isle of Wight in 1545. Henry used the castle

Portsmouth's unique geography once again came into play

(left) **The Battle of the Solent.** Part of an eighteenth-century engraving. It was a copy of a sixteenth-century painting of the events of 19th July 1545 commissioned by Sir Anthony Browne, Master of the King's Horse at the time of the battle. It shows the French attempt to invade England and the loss of King Henry VIII's vice flagship, the Mary Rose, directly in front of Southsea Castle.

(below) **Southsea Castle.** The castle covered the deepwater channel approach to the Harbour at a point where ships were brought closest to shore. It was reputedly designed by Henry VIII himself and built in just six months in 1544 amid fears of a French attack (which came the following year). It was funded with some of the money obtained from the dissolution of the monasteries.

as a viewing platform as his ships moved to confront the French fleet of more than 200 vessels. In the event it was more of a stand-off than a battle, but it resulted in the loss of the pride of the English fleet, the *Mary Rose*, loaded with over ninety iron and cast-bronze guns and crowded with gunners, mariners, archers, soldiers and trumpeters. With her fort-like focsle and poop creating a high centre of gravity, her guns run out and their ports open for action, she heeled so much in a sudden squall that water swamped through her lower-deck gunports. She sank almost immediately, almost directly in front of Henry and his entourage, with an estimated loss of almost 700 men.

The threat of invasion continued through Elizabeth's reign. After visiting Portsmouth and reviewing the fleet in 1561 she ordered reinforcements to the town's fortifications. The moat and ramparts encircling the town were completely rebuilt, the Round Tower was reorganized with six new gun ports for upgraded cannon, and the Square Tower was repurposed as a gunpowder magazine. The costs were defrayed by the first-ever national lottery.

But communicating with London – and in particular with the Tower, where ordnance was stored – was problematic. Most of Elizabeth's investment in her Navy was directed to Deptford, Woolwich and Chatham, as these were better placed to protect London and meet the threat from Spain's base in the Low Countries. These ports on the Thames and Medway were also better placed for victualling and ships' chandlery from London. Portsmouth, with a weakly developed merchant class, struggled to compete.

Nevertheless, when the Spanish Armada passed Isle of Wight on 24th July 1588, Portsmouth, crucially, was able to supply the shadowing English fleet. And if the Naval Dockyard at Portsmouth was relatively quiet, the harbour was frequently busy. London money financed many of the privateers that used Portsmouth as their base, and London merchants used it as a departure point for many of their commercial ventures, including pioneering voyages to Brazil and north and west Africa. It was also from Portsmouth that settlers bound for Raleigh's second Virginia colony departed in 1587, and to which, the previous year, the remnants of the first colony had returned.

Naval expansion

The brief interlude of Cromwell's Commonwealth (1649-1660) was a time of intense naval activity and the start of a boom for Portsmouth and the Dockyard. By then the United Provinces (now the Netherlands) had emerged as a powerful and aggressive mercantile nation. Cromwell recognized the need to position England to challenge Dutch dominance. He revamped the Navy, expanding the number of ships, promoting officers on merit rather than family connections, and cracking down on embezzlement by suppliers and Dockyard staff. Portsmouth reemerged as a shipbuilding centre when the *Portsmouth* was launched in 1650. The Dockyard acquired a double dry dock, a mast wharf, a tar house, and a rope yard. The expansion of Portsmouth's capacity and ship-building role continued after the Restoration: the Anglo-Dutch wars of the seventeenth century were mainly fought at sea. When Charles II came to the throne in 1660 he inherited the largest and most powerful fleet England had ever possessed. His First Secretary to the Admiralty, the influential Samuel Pepys, is credited with transforming the Navy into an efficient organization. Pepys favoured Portsmouth as the country's principal naval base, and the Dockyard's share of naval ship-building increased, with more first- and second-rate warships being built there between 1660 and 1688 than at any other royal Dockyard.

When Charles married Catherine of Braganza in 1662 she arrived in Portsmouth and the ceremony promptly took place in the Governor's House in the old *Domus Dei*. The same year, Charles approved the reclamation of 60,000 square yards of the old Mill Pond to form a gun wharf and sent his

Blockhouse Point. Originally fortified in the fifteenth century, the stone battery dates from the 1660s and was subsequently incorporated into Fort Blockhouse.

Engineer-in-Chief, Bernard de Gomme, to survey Portsmouth's defences and design improvements. Work started on his scheme in 1665 and in the following twenty years or so he oversaw the construction of a fortified gun emplacement stretching between the Round Tower and the Square Tower, with a similar battery across the harbour on Blockhouse Point. Gosport was provided with a rampart and moat to protect the town on the landward side. Two small forts were added: Fort Charles, just north of Gosport Hard, and Fort James on Burrow Island in Portsmouth Harbour. Portsmouth's walls were again rebuilt and ravelins (triangular fortifications located in front of the main walls) and new bastions added. A second moat was also added, with a new defensive rampart between the two moats, forming the Long Curtain on the seaward side. De Gomme also strengthened Southsea Castle, surrounding it with a dry moat. Much of the labour was provided by Dutch prisoners of war, many of whom were billeted in Portchester Castle.

De Gomme's work is still very much in evidence, a stonescape that frames the seaward side of Old Portsmouth

De Gomme's work is still very much in evidence, a striking stonescape that frames the seaward side of Old Portsmouth. The walls, bastions and ravelins on the landward side were demolished in the nineteenth century, their site now occupied by Ravelin Park, the location of Army garrison headquarters until the mid-twentieth century and now part of the University of Portsmouth campus. Other additions and improvements followed de Gomme's work, including a fort protecting access to Portsea Island across Portsbridge Creek.

Meanwhile, Portsmouth was once more well situated to benefit from the geopolitics of the time. The Glorious Revolution of 1688 had brought a new

De Gomme's stonescape. The Eighteen-gun Battery and Flanking Battery, built in the late seventeenth century to complement the Blockhouse Battery and guard the entrance to Portsmouth Harbour.

Long Curtain Moat. Part of de Gomme's late seventeenth century fortifications, the moat sits between the King's Bastion (on the landward side) and the curtain wall that extends eastward from the Square Tower and Point Battery.

monarch, William III, an intense francophobe, who brought England and the United Provinces together, thus shifting the European geopolitical balance so that France became the main enemy once more. More land was reclaimed in order to extend the Dockyard, which doubled in size under the direction of Edward Dummer, surveyor to the Navy Board. Two basins and two dry docks were added to the yard's three existing dry docks, along with a second rope house, new warehouses and workshops and renewed fortifications. The new docks were considered a major feat of engineering at the time, with stepped sides of Portland stone and smooth stone slideways set in each wall for ease of movement of materials to and from the floor of the dock. After ships entered the dock from the basin, water was removed by horse-powered capstans driving continuous chain bucket pumps. One of the docks, the Great Stone Dock (now No. 5 Dock) has survived with only minor modifications.

The yard began to be a place of technological innovation

The yard began to be a place of technological innovation. The *Phoenix*, a fifth-rate launched in 1671, was the first vessel to have its bottom sheathed with lead as a protection against marine shipworms. With its new capacity, shipbuilding became a central activity of the yard. The 1690s saw the launch of His Majesty's Ships *Norwich, Russell, Weymouth, Forester, Fly, Mercury, Newport, Scout, Lichfield, Shrewsbury, Express, Postboy, Association, Exeter, Looe, Seaford, Nassau, Swift*, and *Woolf*. But naval use of the harbour severely limited the development of Portsmouth's commercial port, which was confined to the Camber. The greatly increased Dockyard activities and military operations did generate some local industry, including salt production at Great Salterns, 1,200 acres of which had been Gatcombe Haven, a

network of tidal creeks that had connected to Langstone Harbour before they were walled off and drained in the late 1600s. The salterns supplied the Navy Victualling Department with enough salt to preserve the meat from about 5,000 cattle each year. Langstone Harbour also furnished oysters, a significant element of the local diet. Their discarded shells have been known to show up occasionally in Portsmouth's gardens and allotments.

It all led to a small boom in the town's civil population. Point, at the foot of present-day Broad Street, almost empty in the 16th century, was largely built up by the 1670s:

> *This stable shingle bank provided good foundations, and although the sea rose easily into cellars, and at times of spring tides and low pressure overflowed over ground floors, the shingle was quick-draining and seawater preserved timbers from dry rot. As population increased, many houses were extended on piles over the beaches of Point and Dirty Corner.*[6]

[6] Webb, J. *et al.*, *The Spirit of Portsmouth. A History*. Chichester: Phillimore, 1989, p. 23.

The King James Gate was built at the end of the High Street in 1687, isolating Point, which subsequently became known as 'the Devil's Acre' because of its reputation for rowdiness and louche behaviour. High Street, on the other hand, anchored by St Thomas's chapel, became known for the homes of naval officers, lawyers and medical men and the shops that catered to them. By the end of the seventeenth century the existing town had reached capacity. The solution was to spill over beyond the Mill Pond to Portsea Common. The first houses were built around St George's Square, Butcher and Kent Streets: the first elements of what was to become a new residential district, Portsea, during the great naval expansion of the Georgian era.


5
TRINCOMALEE

Company Town 1714-1830 2

Throughout the eighteenth century Portsmouth had to accommodate a Navy that was aggressively advancing British commercial interests and serially engaged in conflict with one foreign power or another. The growth of the British Empire generated a considerable increase in merchant shipping which needed protection on the high seas. The Navy had to be permanently seaworthy and operational, and although bases were established in the Mediterranean, the Caribbean, and the eastern seaboard of North America, they had only basic facilities. It was left to the home ports, and Portsmouth in particular, to provide for maintenance and repair as well as shipbuilding, supplies, and administration. Meanwhile, across the Channel there was the immediate and continuous threat of the French navy. Britain and France were in conflict during the War of the Austrian Succession in the 1740s and again the following decade in the Seven Years War (1756-63), in continual skirmishes in the long struggle for colonial supremacy in the New World and the Far East, in the American Revolutionary War, the French Revolutionary Wars, and finally in the Napoleonic Wars at the start of the nineteenth century.

The Navy was also busy mapping the world. In 1775 Captain James Cook arrived back at Portsmouth after the second of his epic voyages exploring and charting the Pacific and Southern oceans. The following year the loss of Britain's thirteen American colonies threw the Georgian penal system into crisis. Portsmouth Harbour became a floating prison, with thousands of convicts crammed into the hulks of obsolete Navy ships. Cook's discoveries provided an outlet of a kind: in 1787 the First Fleet of six convict transports accompanied by three store ships and two Navy ships set out from Portsmouth to found a penal colony in Australia.

Company Town

The Dockyard became a remarkable enterprise. Its workforce doubled in size in the 1720s, growing to 120 officers and more than 2,300 men by 1730. Daniel Defoe's innovative travelogue, *A tour thro' the whole island of Great Britain, divided into circuits or journies,* published in 1724, noted that:

> *These docks and yards are now like a town by themselves, and are a kind of marine corporation, or a government of their own kind within themselves; there being particular large rows of dwellings built at the publick charge, within the new works, for all the principal officers of the place; especially the commissioner, the agent of victualling ... the tradesmen likewise have houses here, and many of the labourers are allow'd to live in the bounds as they can get lodging.*[7]

[7] Defoe, D., *A Tour Through the Whole Island of Great Britain*. London: Everyman edition, 1962, p. 137.

Semaphore Tower and Lion Gate. The original semaphore tower was destroyed by fire in 1913. When it was rebuilt, the old Lion Gate into Portsea (1778) was recreated to form 'The Gateway to the Empire' leading to the South Railway Jetty.

By 1800 the Dockyard had become a unique kind of setting, a government-run 'company town' containing the largest industrial site in the world within its walls. Soon after Defoe's visit new slips were added, dry docks enlarged and a Naval College established. After the Seven Years War an extensive reorganization and expansion added a new dock, several storehouses, a smithy, the Rigging Store, the Sail Loft, the Hemp Tarring House, the Great Ropehouse, new housing for Dockyard officers (Short Row), and a grand Commissioner's Residence (Admiralty House). Much of this construction was contracted out by the Admiralty, but to the London firm of Templar and Parlby rather than to local contractors. The yard also had its own church, St Ann's, and an innovative new type of building: a terrace of purpose-built offices (the South Office Block).

Much of this still survives: an imposing and coherent assemblage of Georgian architecture. The distinctiveness of the Dockyard townscape is partly a result of the restrained formalism of the buildings and their limited palette of materials – red brick, stone, and slate. That is not to say that they are dull or plain: even the storehouses are detailed in Portland Stone, their neoclassical features reflecting the confidence of the age. Overall, the Naval Base arguably contains the finest collection of Georgian industrial buildings in Britain. It has 40 listed buildings, five of them recognized by Historic England as Grade I ('of exceptional interest, sometimes considered to be internationally important') and fifteen as Grade II* ('particularly important buildings of more than special interest'). Together, the surviving Dockyard buildings form a key element of the city's present day heritage industry (see Chapter 6).

By 1800 the Dockyard had expanded to cover more than 80 acres and had become a hothouse of industrial and engineering innovation, 'arguably ... the pioneering production site of the Industrial Revolution'.[8] The functional organization of its buildings was an embodiment of what would later become known as assembly-line principles:

> *Thus the southern part contained the principal storehouses including the sail loft and the hemp stores, together with the rigging house and the Great Ropehouse. The central sector contained the repair and refit facilities with timber stores, saw pits, carpenters' and joiners' shops. The northern part specialised in building with building slips, timber seasoning pits, saw pits and the smithy.*[9]

[8] Bardell, M., *The Isle of Wight, Portsmouth and the Solent. A Cultural History.* Oxford: Signal Books, 2012, p. 92.

[9] Riley, R.C., *The Industries of Portsmouth in the Nineteenth Century.* Portsmouth Papers, 25, 1976, p. 4.

This environment, combined with the intense demands of the Navy, was especially conducive to innovation. Among the more notable innovations were steam dredgers and hopper barges, both introduced by Samuel Bentham, the Inspector General of Naval Works (and brother of the famous philosopher and political radical, Jeremy Bentham). Samuel Bentham himself patented circular saws driven by a steam engine and introduced them to the yard's operations. But most notable of all was the installation of machine tools for the mass production of pulley blocks. This was a landmark in the history of technology, the first application of machine tools used for mass production. The Navy was a prodigious consumer of the block-and-tackle equipment used to raise and lower ships' sails and rigging. Bentham commissioned a new building, the Block Mills, to house innovative machinery designed by Marc Brunel (the father of Isambard Kingdom Brunel). By 1808 Brunel's 45 machines were able to produce 130,000 pulley blocks a year. The machinery paid for itself within four years and was still working over a century later.

The Naval Base arguably contains the finest collection of Georgian industrial buildings in Britain

As the Navy grew, the scope of Dockyard activities expanded and spread around the harbour. A Royal Naval Hospital was established at Haslar, across from the Round Tower on Gosport's southern peninsula. Built in the same neoclassical Georgian style as the principal Dockyard buildings, it somehow gained a reputation as the largest brick building in Europe at the time. Its real significance, though, was its innovative introduction of a campus layout that was conducive to rational medical care as well as the particular needs of the Navy (including high walls to prevent sailors from absconding). The hospital was accessed by way of its own jetty and had an isolation block and

Ropehouse and Hatchelling House. In this long (1,095 feet) 3-storey structure, built in 1771, hemp was straightened out, or hatchelled, before being made into hemp strings, which were then spun into rope. To the left of the Ropehouse in the photo is the Tarring House (1747).

Haslar Hospital. Prompted by serious losses through sickness during the Spanish Wars, the Navy built its first general hospital in 1746-62. By 1780 it was the largest brick building in Europe, capable of accommodating 2,100 patients. Decommissioned in 2007, it has been redeveloped as a 'waterfront village'.

a specialized asylum for 'lunatics' with adjoining 'airing grounds' that had direct access to the Solent waterfront. The campus also had purpose-built residences for senior medical officers, the most eminent of whom was James Lind, who sailed to the Pacific with Captain Cook and whose clinical trials at Haslar confirmed the cure for scurvy.

The scale of the Navy's operations also required an expansion of Dockyard logistics capacity. A new bakery was built at the head of the Mill Pond, a slaughter house was established in St Mary's Street (now Highbury Street), Old Portsmouth, and for a while the Square Tower was converted to a meat store. But by the 1820s the facilities were obsolescent and the system strained, and a new purpose-built Victualling Yard – the Royal Clarence Yard – was created on the Gosport side of the harbour in the aptly-named Weevil Lane, where the Admiralty already had a brewery. Here was another imposing range of Georgian industrial buildings, including a slaughterhouse – one of the first large industrial food processing plants in the country – a vast bakery, a flour mill and engine house, storehouses, a cooperage, a water-tank store and, most impressive of all, a three-storey granary mounted, to deter rodents, on cast-iron Tuscan columns. The steam-powered biscuit-making machinery in the bakery was capable of turning out 100,000 ship's biscuits each working day.

Number 10 Storehouse. Much of the Georgian Dockyard was taken up with stores, and this (along with Nos 9 – seen here in the distance – and 11) is the most architecturally distinguished surviving example. Built in 1776 it is now a museum.

Porter's Lodge. Built in 1708 at the main entrance to the Dockyard, it is the oldest surviving building in the Naval Base.

Vulcan Block. Built (1810-20) as the Grand Storehouse for the new gun wharf ammunition and munitions complex, it was renamed as the Vulcan building when it was repurposed for the departments of mine and torpedo design as part of the new shore establishment of HMS *Vernon*. It ihas since been converted into apartments, restaurants and offices.

Royal Naval Academy. Opened in 1733, it was the Navy's first shore training establishment. It became the Staff Officers' Mess when the Navy's education and training functions transferred to Greenwich in 1873.

The Dockyard also had to keep up with the Navy's need for sufficient ordnance. The old Gun Wharf Yard had become cramped, so a New Gun Wharf was built on reclaimed land on the southern side of the Mill Pond creek. It was here that cannon, small arms and other ordnance were stored. Ships would collect munitions before leaving to go to sea; and return the armaments and ordnance stores while they were 'in Ordinary' (being refitted or laid up after decommissioning). Gunpowder was kept well away, stored in another new development at Priddy's Hard on the Gosport side of the harbour. By the start of the Napoleonic Wars in 1803 the Dockyard was the largest naval arsenal in the world. The armoury and the powder magazine not only serviced the Navy's Portsmouth-based ships but also its depots in Britain's colonial outposts. Two of the three original wings of the Grand Storehouse survive,

Customs House. Dating from 1811 this building controlled the storage and issue of armaments and ordnance stores to the Navy's ships before being used as the administration building for HMS *Vernon*. Now a public house and restaurant.

along with the Gun Wharf's Administration Building. The Storehouse later became known as the Vulcan Building and has been converted to private apartments; the Administration Building became a Customs House and has been converted to a pub; and the powder magazine has been transformed into a museum (see Chapter 6).

Civilian employment in the Dockyard grew in parallel with all this, from just over 1,100 in 1714 to more than 5,600 in 1813: a massive workforce, several times larger than any of the largest private industrial enterprises of the time. At the top of the Dockyard's labour hierarchy were civilian officers and clerks – including the Master Attendant, Master Shipwright, Clerk of the Cheque, Clerk of the Survey, and Boatswain of the Yard – followed by master workmen such as the Master Joiner, the Master Boat Builder, the Master House Carpenter, the Master Smith and the Master Bricklayer; and then foremen and craftsmen such as carpenters, joiners, masons, smiths, locksmiths, blockmakers, and sailmakers. The bulk of the civilian workforce consisted of shipwrights, and under them was a workforce of sawyers, yard labourers, caulkers, pitch heaters, 'winder-uppers', scavelmen (responsible for general cleaning, tidying, and operating routine equipment), and oakum boys.

Another consequence of the growth of the Navy was the need for barracks. Not only did the Navy need local accommodation for its officer class; Portsmouth's strategic importance made it a key garrison town for the army. Infantry were housed in the Cambridge Barracks on High Street; the Artillery were in Point Barracks on Broad Street and Clarence Barracks near St Nicholas Street; the Army Service Corps were in the Colewort Barracks on

Milldam Barracks. Built around 1800 for the Royal Engineers, the barracks were decommissioned in 1969 and acquired by the University of Portsmouth for the School of Social and Historic Studies.

Victory Main Gate, HMS *Nelson*. The formal entrance to the first naval barracks in Portsmouth, HMS *Victory* (now HMS *Nelson*), was built in 1902 re-using parts from the former Portsea Quay Gate of 1734.

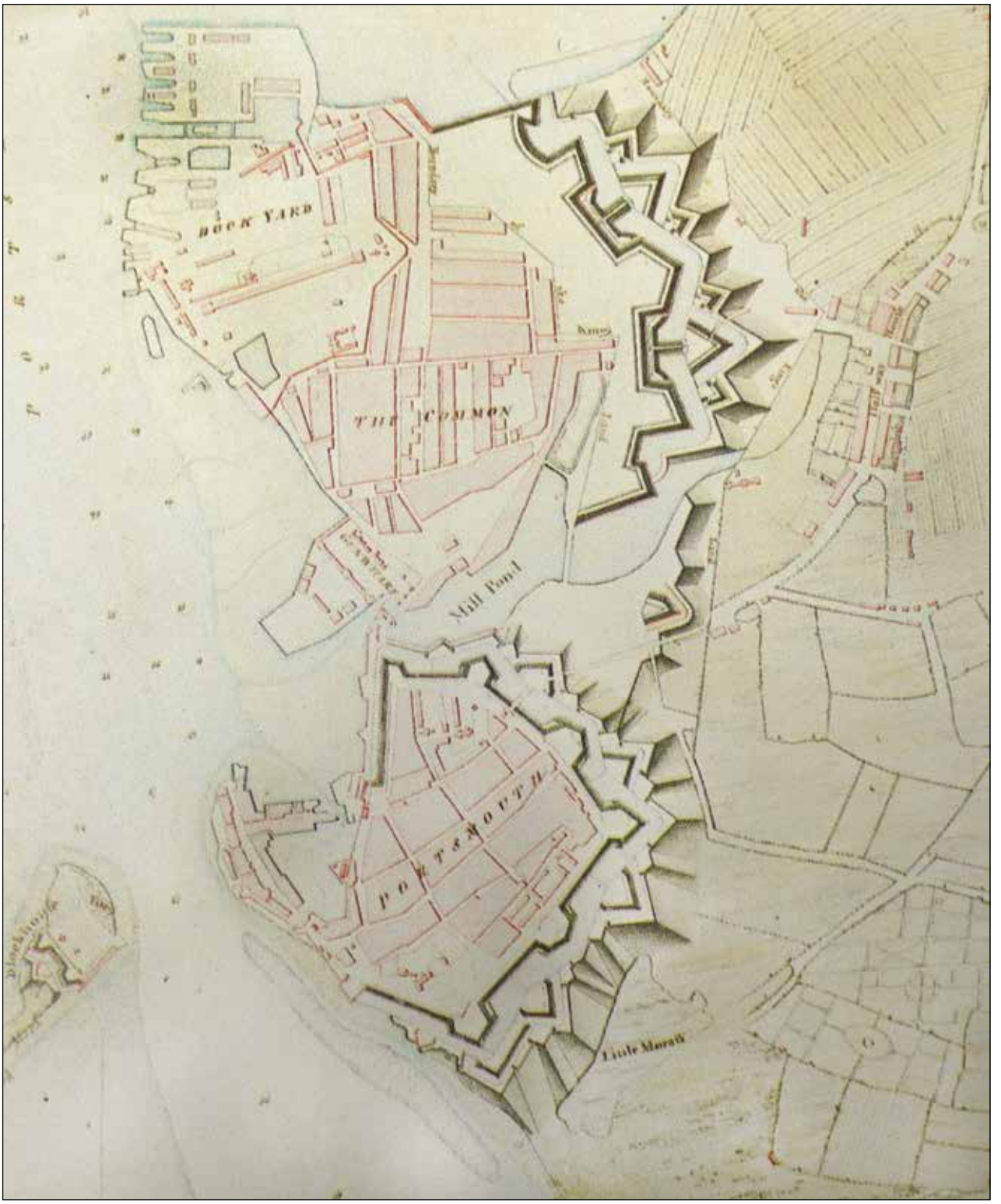
St George's Road; the Royal Engineers were in Milldam Barracks on Burnaby Road and the Sappers' and Miners' Barracks in Weevil Lane (Gosport); the Royal Field Artillery were in Hilsea Barracks; and the Royal Marines were in Forton Barracks (Gosport) and the Marine Barracks on Barrack Road (now Peacock Lane). The Navy finally added its own new barracks, HMS *Victory* (now HMS *Nelson*) on Queen Street, next to the Dockyard, in 1903.

Defences

With so much at stake the town's defences had to be restructured and reinforced once more. The development of mobile artillery made Portsmouth vulnerable to a landing at some undefended point along the coast followed by an attack on the city from the north. In response, the bastion at Portsbridge was strengthened to defend the landward entrance to Portsea Island and in 1747 the first Hilsea Lines were constructed: a continuous rampart and deep moat right along Portsbridge Creek, separating Portsea Island decisively from the mainland. The town ramparts were upgraded once again and the Round Tower was strengthened to increase its resilience against more powerful artillery.

At the start of the Seven Years War the British government directed the Board of Ordnance to defend at all costs the Dockyards and anchorages at Chatham, Dover, Folkestone, Portsmouth and Plymouth: the French Minister for War, the Duc de Choiseul, had been increasing French military capacity with the clear intention of mounting an invasion. His plan was evidently to attack Portsmouth after a diversionary raid on Ireland. In response, the Board's Clerk of Fortifications, Colonel John Desmaretz, fortified Hilsea Lines and the Portsbridge Fort, rebuilt the Gosport Lines, remodelled de Gomme's bastions and ramparts, and added several ravelins. An earthwork battery on the south-east corner of Portsea Island was replaced by a large star-shaped fort, Fort Cumberland, designed by Desmaretz to guard against enemy forces landing in Langstone Harbour and attacking the town from the landward side. It was augmented by new batteries at Eastney and Lumps, to guard the long stretch of Channel shore, and in the 1790s it was entirely rebuilt in brick and stone by convict labour brought ashore from the hulks in Portsmouth Harbour. Traces of the batteries and a good deal of Fort Cumberland still exist; the fort is generally reckoned to be the best example of a bastion trace fort in Britain.

Fort Cumberland. Located on the site of an earlier fort built by the Duke of Cumberland in 1748, Fort Cumberland was laid out between 1785 and 1812, featuring the latest Continental designs, including a star-shaped plan with bastions, ravelins, and casemated ordnance.


DOCK YARD
THE COMMON
Mill Pond
PORTSMOUTH
Little Morass

The Sailors' Highway

Portsmouth's growing importance required better communications with the rest of the country, and especially with London. Portsmouth to London was in fact one of the first long-distance routes completed through a series of turnpikes at the start of the 'turnpike mania' of the 1750s. The first link in the route, between Portsmouth and Petersfield, had opened in 1711 as the Portsmouth and Sheet Bridge Turnpike. Turnpike Acts authorized a turnpike Trust to levy tolls on those using the road and required the Trust to use that income to repair and improve the road. The 'turnpike' was the gate that blocked the road until the toll was paid; there were six of them between Portsmouth and London, with coaching inns at Hindhead and Kingston-upon-Thames for a change of horses and a chance for passengers to eat. Prior to the turnpikes the journey from London to Portsmouth took more than 24 hours; the turnpikes reduced the journey time to 14 hours and by the 1780s mail coaches had reduced it to nine hours. Most turnpike roads carried mainly commercial traffic but there were so many naval officers travelling on the turnpike between London and Portsmouth that it was dubbed The Sailors' Highway. Departure from London was the George Inn on Borough High Street and arrival in Portsmouth was at the George Hotel on Queen Street – now the last surviving eighteenth-century pub in Portsmouth. Once on Portsea Island, the London road ran south, separating at Hilsea into the three branches, later named Commercial, Fratton and Copnor Roads.

There were so many naval officers travelling on the turnpike between London and Portsmouth that it was dubbed The Sailors' Highway

The George, Queen Street. A pub was built on the corner site in 1781 and it became a stopping place for coaches on their way to and from London. The next-door property, originally a shop, is now incorporated into the George Hotel.

(oppsite) **Porsmouth in 1773.** The new suburb of Portsea ('The Common') is separated from the town itself (now Old Portsmouth) by the Mill Pond and, like the town, hemmed in by the fortifications overseen by John Desmaretz between 1745 and 1756. [Catalogue of Maps, Prints, Drawings, etc. v.2, British Museum Department of Printed Books, King's Library].

Turnpike mania was soon eclipsed by canal mania. While the turnpike was sufficient for passengers and light cargo, heavy goods and supplies destined for Portsmouth had to be taken by coasters, which were vulnerable to attack in the Channel by the French. A secure inland waterway seemed the ideal solution, guaranteeing investors a steady income from barge traffic. The Portsmouth and Arundel Canal opened in 1823 and provided a route to London via the Arun Navigation Canal, the Wey and Arun Canal, the Wey Navigation Canal, and the Thames. Today, Arundel Street marks the location of the terminal basin on Portsea Island. From there the canal ran eastward along the what later became Goldsmith Avenue and Locksway Road to the southeastern shore of Portsea Island. The old towpath (now a bicycle path) can be traced between the junction of Goldsmith Avenue and Milton Road and Ironbridge Lane, where it meets the eastern section of Locksway Road. At the edge of Langstone Harbour the remains of the sea locks, built to handle 150-ton sailing barges, are still visible. From there the barges were towed by steam tugs across a 13-mile dredged channel north of Hayling Island to Chichester Harbour where the canal began again. By the time the canal was opened, however, the war with France was over and thus one of the key reasons for its construction was removed. As a result it was never very prosperous and it closed 1838.

Meanwhile, the Admiralty's need for fast communications between Portsmouth and London was met by a dedicated line of semaphore stations. The first semaphore tower was built in 1817 on top of the Square Tower. From there, messages took just 20 minutes to get to the Admiralty in London by way of 15 semaphore towers. In 1833 a new semaphore tower was erected in the Dockyard above the Sail Loft and Rigging House.

Milton Locks. This sea basin allowed canal boats access from the canal to and from Langstone Harbour when the tide was high. To supply the water for the rest of the canal, a nearby pumphouse drew water from a well and (at high tide) the sea.

Boom Town

The expansion of the Dockyard generated a significant increase in the civilian population, but the walled town was already cramped and overcrowded in the seventeenth century. Building just beyond the town walls was out of the question because the military authorities insisted on clear ground for an arc of defensive fire; and in any case the marshy ground of the Little Morass was a deterrent to development. The next-best site for residential expansion was to the north, across the Mill Pond on Portsea Common. Dockyard authorities resisted development at first, but by the start of the eighteenth century they had to yield to the press of urbanization. Portsmouth's first suburb, Portsea Common, was described by Daniel Defoe when he visited in 1724:

> *Since the encrease of business at this place, by the long continuance of the war, the confluence of people has been so great, and the town not admitting any enlargement for buildings, that a kind of a suburb, or rather new town has been built on the healthy ground adjoining to the town, which is so well built, and seems to encrease so fast, that in time it threatens to outdo for numbers of inhabitants, and beauty of buildings, even the town itself.* [10]

Streets were allocated illustrious-sounding nationalistic and royalist names

[10] Defoe, D., *A Tour Through the Whole Island of Great Britain.* London: Everyman edition, 1962, pp. 138-9.

As it grew, the layout of Portsea Common was largely determined by the alignment of medieval land-holdings: mostly the strip cultivation that dominated the western side of Portsea Island. Landowners sold strips piecemeal to dockyard workers and craftsmen acting singly or in small groups, who then staked out a primitive roadway along the strip. Streets were often initially built on one side only and houses were mostly built in ones and twos. In 1764 the Common's first Paving Act provided for street maintenance and prevention of nuisances and the district's official status was recognized by adopting the name 'Portsea'. By the 1770s the suburb had been ringed with its own walls and ravelins, with two entrances – Lion Gate and Unicorn Gate – from Portsea Island. The streets were allocated illustrious-sounding nationalistic and royalist names: Albion Street, Hanover Street (after the Georgian kings), Union Street (after the 1707 Act of Union between England and Scotland); King Street (after George II), Prince George's Street, Queen Street (after Queen Anne), and Hawke Street (after Admiral Edward Hawke, First Lord of the Admiralty and victor of the Battle of Quiberon Bay), for example. Queen Street was in fact a fashionable shopping street with nearly 100 different businesses, but many of the other streets and alleys were ill-paved and the houses insubstantial and squalid. Only a handful of 18th-century Portsea houses remain: a few each in Queen Street and St George's Square.

Georgian terrace, Queen Street. Originally built with shops on the ground floor, these three houses date from the early 1800s. The nautical-style bow windows on the first floor are typical of Portsea and Old Portsmouth but a departure from classic Georgian style.

Old Portsmouth had its own share of slums, but the High Street retained its character as the town's retail and service centre. In 1784 it had 3 attorneys, 2 bakers, 1 bookseller, 2 brewers, 5 butchers, 1 cheesemonger, 2 doctors, 1 druggist, 1 glazier, 1 glover, 5 grocers, 2 hairdressers, 12 inns, 1 ironmonger, 2 hatters, 3 mercers, 3 milliners, 1 pastry cook, 1 printer, 4 shoemakers, 3 silversmiths, 1 stationer, 4 surgeons, 1 tailor, 1 tallow chandler, 2 watchmakers, and 3 wine merchants. The inns on High street were serviced by dozens of maids, cooks, laundresses, waiters and ostlers and catered to the town's wealthiest residents and its most distinguished visitors. Nelson famously stayed at The George on High Street before leaving for the Battle of Trafalgar, leaving by a back entrance in Penny Street to avoid the crowds waiting in High Street.

The hallmark of Broad Street was its concentration of less salubrious taverns and beerhouses

In 1829, apartments were reserved at The George for the Queen of Portugal and the Empress of Brazil; and the following year the Duchess of Kent stayed there with the young Princess (later Queen) Victoria. The hallmark of Broad Street, meanwhile, was its concentration of less salubrious taverns and beerhouses. Throughout the 1700s there were always between 40 and 50 drinking houses of one sort or another along its frontage of just 380 yards. Many of them doubled as brothels, contributing to Point's reputation for debauchery, captured by Thomas Rowlandson's caricature – *Portsmouth Point 1800* – that is reproduced on the gable end of the Bridge Tavern at the Camber.

St George's church, Portsea. Built in 1754, it anchored the growing suburb of Portsea.

Portsmouth Point. The famous depiction by Thomas Rowlandson of louche behaviour at the northern tip of Broad Street. It was published in 1814.

Meanwhile, the Napoleonic Wars brought boom conditions to the Dockyard. Its steady growth drew more and more workers. By 1801 Portsea's population had reached 8,000, just exceeding the number who resided in Old Portsmouth. But still more had spilled out into new suburbs in Landport (population 10,130 in 1801) and Kingston (6,909). As in Portsea, there were some well-built detached villas and a few solid terraces but behind them was a warren of slums created by speculative developers who bought field strips and promptly built rows of cheap houses without any attention to drainage or sanitation. Landport, immediately to the east of Portsea, took its name from the Landport Gate in the town walls, and it grew up around present-day Commercial Road and Charlotte Street. By the early 1800s the development of Landport had spilled north along the old London road to swallow the village of Buckland. It was from there, the story goes, that the first balloon flight in Portsmouth was launched. In order not to endanger human life the only passenger on the flight was a bull. He was said to have travelled as far as Petersfield. The event (or tale) was subsequently cemented in Portsmouth lore by a landmark pub (now closed), a street – Flying Bull Lane (now Garfield Road) – and a school (the Flying Bull Academy on Centaur Street). A little to the east, the village of Kingston was popular with naval officers who sought to avoid the squalor of the town yet still have easy access to the Naval base by horse and carriage. The village of Fratton had become a rural retreat for prosperous townsfolk, while wealthier naval officers favoured Fareham, which had developed into a pleasant and prosperous market town. Elsewhere, settlement was restricted to rural hamlets and villages, fragments of which can still be seen amid today's landscapes.

Landport Gate. Built in 1760 as the new main entrance to Portsmouth and thought to have been based on a design by Nicholas Hawksmoor, the gate remains in its original position (now on the western boundary of the United Services Sports Ground).

Quebec House. Built 1754 by public subscription as a seawater bathing house, this is the only remaining survivor of the weather-boarded houses typical of the area around Bath Square and the Point.

Spice Island Inn. Formerly (as a Brickwoods pub) the Coal Exchange, the pub stands on the site of earlier drinking establishments, including the North Country Tavern, the Jolly Sailor and the Union Tavern.

Georgian Suburbs

Early in the nineteenth century developers turned their attention to the farmland to the east and south of Old Portsmouth. Upper-middle class town homes were built facing the open ground in front of the town fortifications along a series of terraces: Belleview Terrace, Kings Terrace, Landport Terrace, and Hampshire Terrace. Behind Kings Terrace, and just to the north of the Little Morass, Thomas Croxton developed a small area of artisan housing, naming the streets of his gridded 'Croxton Town' after metals and minerals – stone, flint, gold, silver, steel and copper. A large tract of land to the east of Landport Terrace was transformed into Somers Town by the landowner of that name, and when the Little Morass was drained in the early 1820s it opened the way for the development of Southsea. The Great Morass – almost 500 acres of it – remained an obstacle to development, its sloughs reaching as far as what are now Castle Avenue, Palmerston Road, Albert Road, and Victoria Road South. An Enclosure Act of 1786 had divided the marshland and intervening stretches of gorse, scrub, shingle and sand among eight owners and given them permission to drain their property. Little was done, however, until the 1840s, when draining the area for building at last became financially worthwhile.

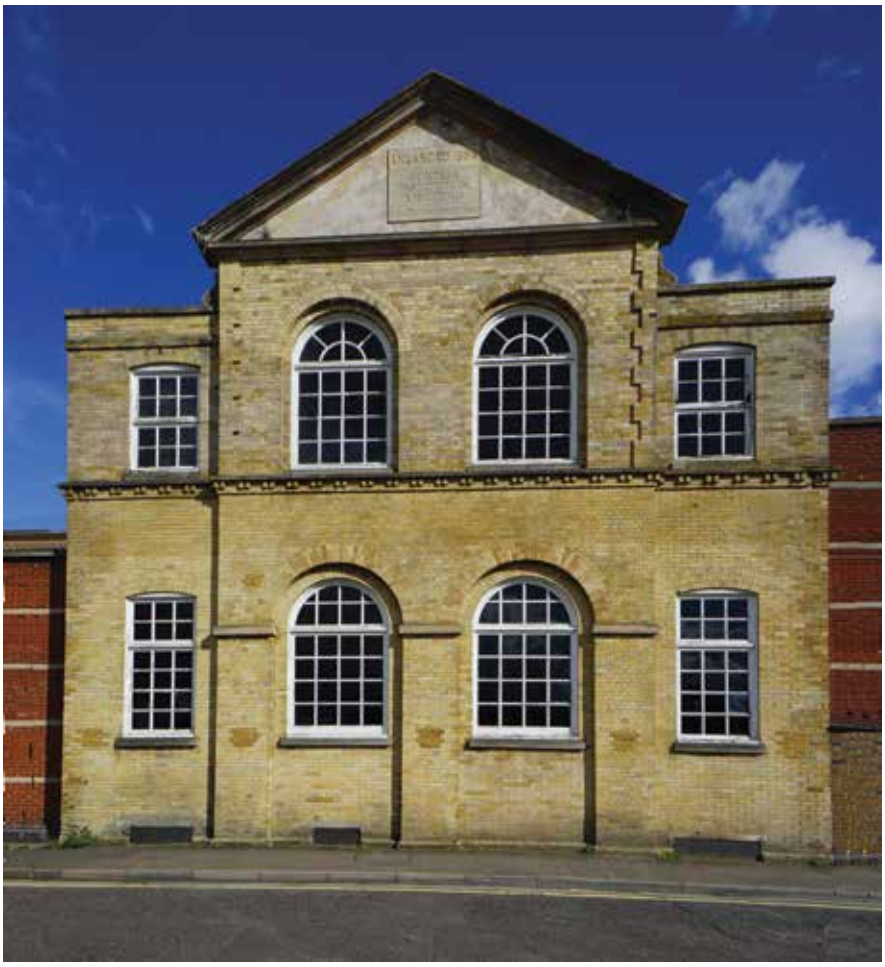
The built-up districts were uniformly of Georgian style, many streets presenting an austere symmetry in their plain brick frontages, tall windows and pedimented doors. Yet in detail there were several strands of Georgian architecture, with emphasis on different neoclassical sources. As the century wore on, plain brick structures were increasingly embellished in response to

Great Southsea Street. Late Georgian terracing, part of the early development of Southsea, just to the east of Croxton Town. At the time it was built it stood on the very edge of the Great Morass.

(opposite) **Georgian town house, Old Portsmouth**. A refutation, perhaps, of Pevsner's snooty dismissal of the central section of High Street as 'a wretched hotchpotch of buildings that are ... just unpleasantly nondescript'. Built in the 1790s; now used as offices.
Pevsner, N. and D. Lloyd, *The Buildings of England. Hampshire and the Isle of Wight*. London: Yale University Press, 2002, p. 452.

Kings Terrace. Built around 1810 to face newly-open ground created by the removal of the ravelins and walls of the old town defences.

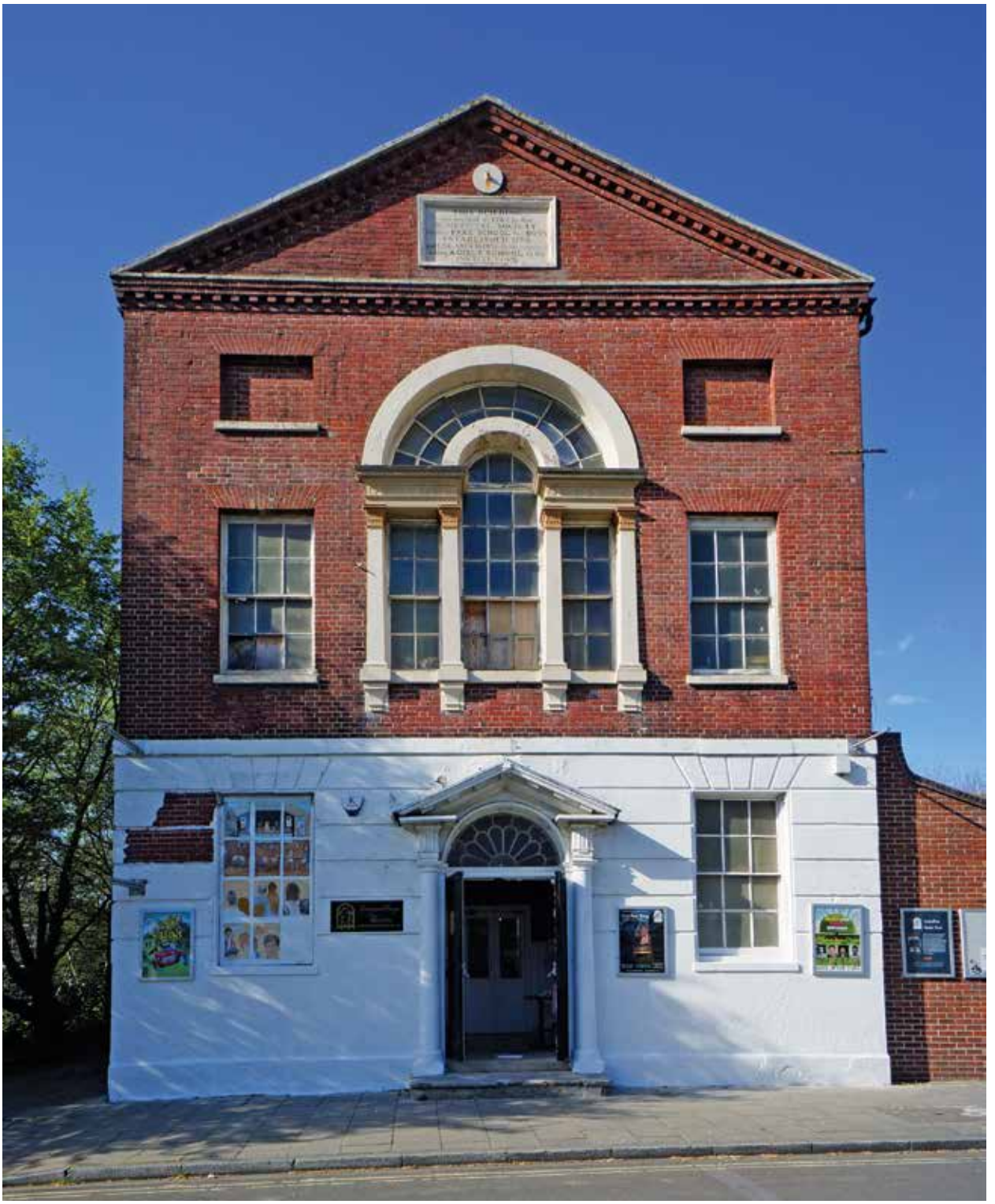
Charles Dickens birthplace. By 1806 development had reached Mile End, where more prosperous houses were constructed for the middle classes. John and Elizabeth Dickens moved to one of the new houses in 1809 and their son Charles was born there in 1812.



Clarence Street Bell School. The school was built in 1814 and enlarged in 1894 as the Portsea Institution. The National Society for Promoting Religious Education paid for the original building and the school provided elementary education for the children of Portsea's poor. This façade is preserved as part of a supermarket wall (see page 187).

a perceived need for social and architectural distinction. Given the expense of building stone, the solution was stucco. From about 1760 it had been deployed by Robert Adam and other leading architects in London, and by 1800 it had become the dominant feature of fashionable residences elsewhere, mostly in loosely Italianate neoclassical style. Stucco was used to add street-level detailing, pillared porticoes, figurative sculpture, festooned friezes and other small-scale classical details.

Most of what remains of this housing stock was built as upper-middle-class accommodation. For the most part, the housing of the period was very modest (and long replaced), since the town's occupational structure was a mirror of the Dockyard labour force and its wages. Apart from the shipbuilding trades, civilian employment was dominated by food and drink and clothing and footwear. Tailoring, which developed in response to the demand for uniforms for senior naval and military officers, could pay well; but most of the jobs in food and drink and in footwear were low-skilled or semi-skilled and



did not pay well at all. As a result, the town was broadly impoverished, with little to relieve hardship or improve living conditions. One exception was the Beneficial Society, formed in 1755 to provide a school for poor boys and help for families in times of sickness and with funerals. The school, on Kent Street in Portsea, was enlarged in 1836 to add a classroom for girls.

Another exception – small, but significant in broader context – was the tiny informal school run by John Pounds. Pounds had been an apprentice shipwright in the Dockyard but after injuring his back he became a cobbler, eventually opening a workshop on St Mary's Street in Old Portsmouth. Having educated himself while recovering from his injuries, Pounds realized that education was the key to breaking the cycle of poverty. In his workshop he began giving lessons to local children, free of charge. It was a radical idea that sparked a revolution in the British education system. In Edinburgh, Thomas Guthrie heard about Pounds' lessons and became an advocate of free education for working class children in 'Ragged Schools', providing regular meals, clothes, 'industrial training' and Christian instruction as well as lessons in literacy and arithmetic. Guthrie started his own free school and soon the idea spread among philanthropists and reformers. Charles Dickens' visit to Field Lane Ragged School in London inspired him to write *A Christmas Carol*, and the lobbying of the London-based Ragged School Union paved the way for the landmark Education Act of 1870, which established local education boards that were empowered to raise revenues through property rates for the education of children between the ages of five and twelve.

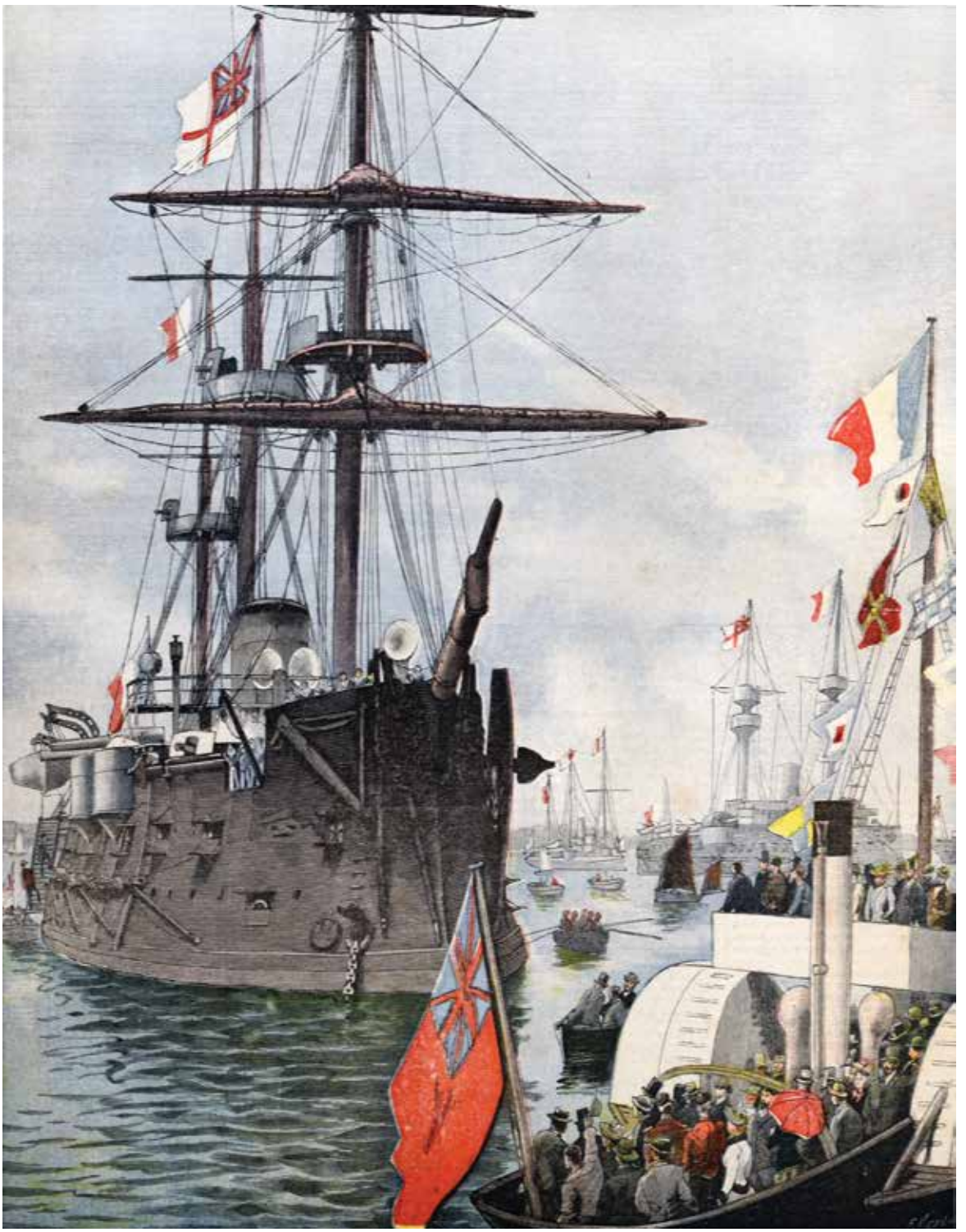
John Pounds' workshop. This is a replica of the original, located behind the rebuilt Unitarian Chapel on High Street, where Pounds is buried.

(opposite) **Beneficial School, Kent Street.** Erected in 1784 by the Beneficial Society for their Free School for Boys. The school used a monitorial system, where the teachings of an instructor were passed on to the rest of the school by older pupils.

Meanwhile, the spiritual well-being of Portsmouth's population was provided for by a church-building programme funded by Parliament through Church Building Acts of 1818 and 1824. These 'Commissioners' churches' were meant to provide a beachhead against the increasing secularism and non-conformism of Britain's burgeoning cities, securing new suburbs for the established Church. All Saints church in Portsea survives as one of these; others, now bombed out or demolished, included St Paul's, Southsea, St Mary, Portsmouth, and Holy Trinity, Portsea.

The rest of Portsea Island remained rural throughout the eighteenth century. Old village centres remained largely unaltered but the countryside changed as a result of the town's growth. Winchester College had acquired much of Portsea Island when Southwick Priory, which had operated its Portsea landholdings as a grange, or outlying farm, was broken up in the aftermath of the Dissolution of the Monasteries in the 1530s. In the late eighteenth century the College began selling off its land. Ribbon development spread along what were to become Commercial, Fratton and Copnor Roads. The majority of the strips and fields on the rest of Portsea Island were substantially untouched, but they changed in appearance as farmers shifted production to concentrate on livestock and hay in response to rising levels of demand in the town while smallholders developed market gardens and nurseries and others opened paddocks and stables to serve the town's carting and carriage enterprises.

(opposite) **All Saints, Portsea.** A Commissioners' church, financed by the central Government and built in 1827 as part of a national attempt to strengthen the influence of the Church as a bastion against social revolution.



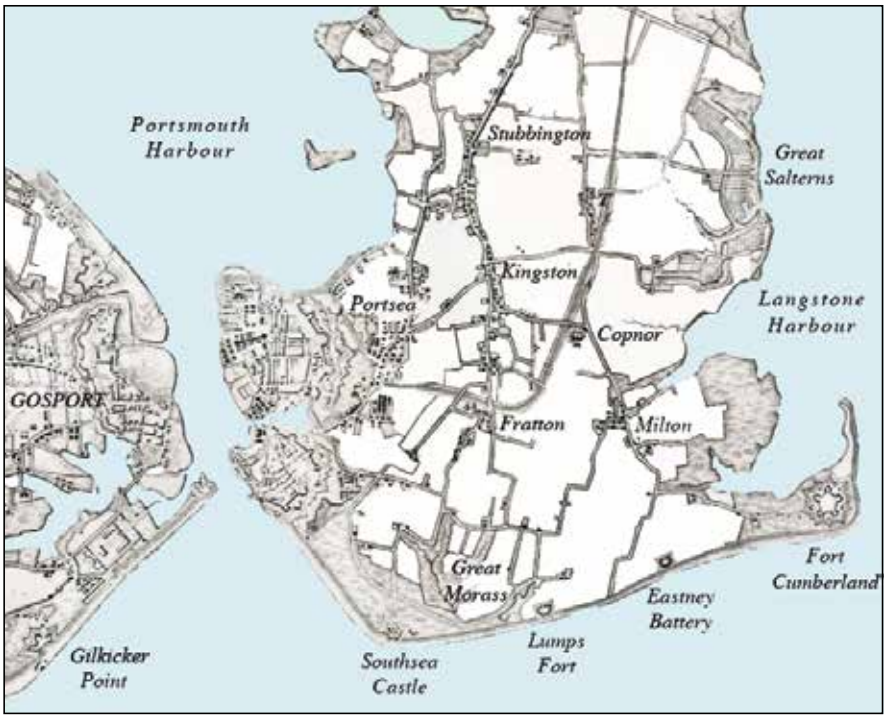
Pax Britannica 3

The fundamental character of modern Portsmouth was forged in the nineteenth and early twentieth centuries. At the beginning of the Victorian era most of Portsea Island, as well as the adjacent mainland, was still open countryside. By the end of the Edwardian era, early in the twentieth century, Portsmouth had become a city with a population approaching a quarter of a million, the gateway to a British empire spanning 13.5 million square miles of territory and roughly 400 million people. At the same time, Portsmouth, like other British cities, had developed around the new needs and priorities of industrial capitalism. Steam power, electricity, telegraphy and the internal combustion engine all wrought significant changes in the ways in which cities could be built and organized. The composition of urban populations also changed. Industrialization ruptured the old order and generated a new class structure featuring not only a new proletariat of shopfloor workers but also a new middle class of white-collar workers – clerks, teachers, shopkeepers and bureaucrats who helped to keep cities and empire ticking. Social change translated into social geography as emerging class fractions sought to differentiate themselves from one another through address, architecture and lifestyle.

A great national building boom developed in the 1870s, driven by prosperity resulting from a combination of industrialization and colonialism. It came to a head in 1880–81; but there were also building booms in the 1840s and the mid-to-late 1890s, with troughs between. All of them left their mark on Portsmouth. The development of residential suburbs during the boom years was mostly opportunistic, with no planning and little regulation. Land was sold off, field by field, to be covered with long terraces and pattern-book villas. During the troughs of the building cycles, Portsmouth, like other cities, acquired institutional and recreational buildings and the space-hungry infrastructure of public utilities. By the end of the Edwardian era the great surge of residential building on Portsea Island had seen the virtually complete build-out of Portsea, Landport, Buckland, Rudmore, Fratton, and Somerstown and the creation of an enclave of villas for upper-middle-class households in Southsea. The ancient hamlets of Hilsea, Copnor, and Milton were meanwhile beginning to be engulfed by speculative housing.

But Portsmouth's shape and character was especially – and uniquely – influenced by the needs of the Navy; and the Navy's needs were dictated by the combination of changing technologies and global geopolitics. The Napoleonic Wars had left the British Navy as the most powerful in the world, with no significant rivals. Britain was the global hegemonic power, and the

(opposite) **Détente.** The French naval squadron's goodwill visit to Portsmouth in 1891. Cover illustration from *Le Petit Journal,* 29 August 1891.

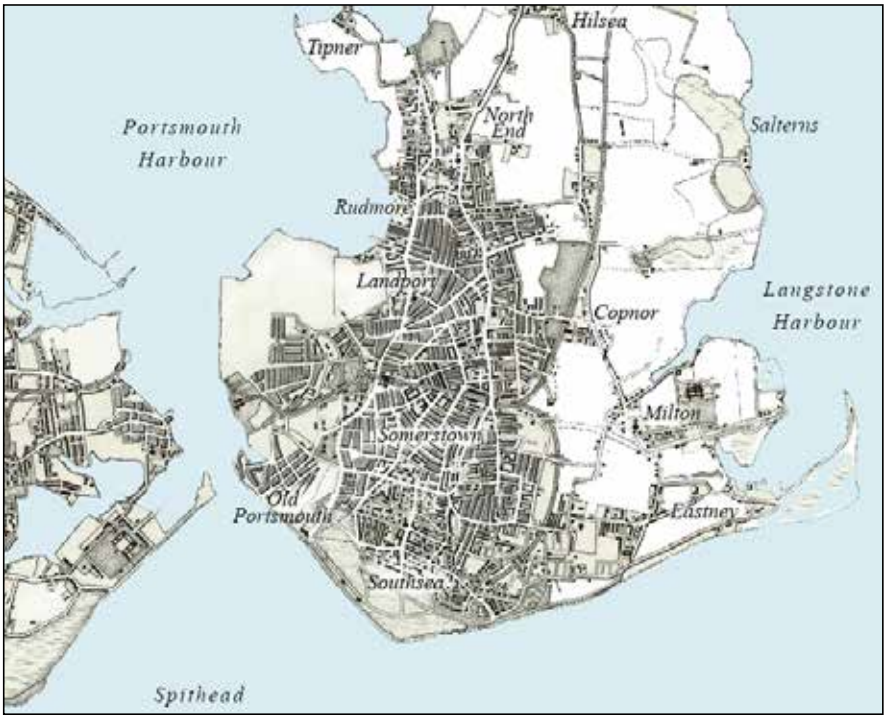


Portsmouth in 1858. Apart from some ribbon development along the principal roads to the mainland, settlement was still restricted to the southwestern corner of Portsea Island.

Navy had a key role in the *Pax Britannica* of the nineteenth century: underpinning diplomacy through the threat of naval force, controlling maritime trade routes, blocking slave trade, and suppressing piracy. In addition to policing trade with British colonies, it was left to the Navy to secure neocolonial control over trade with other countries, including China, Argentina and Brazil. In short, the country's economic and strategic strength was dependent on the fleet, and national leaders and public opinion alike supported investment in a powerful Navy.

Throughout Pax Britannica *the Royal Navy was busy escorting troopships from Portsmouth to trouble spots and imperial bases*

Nevertheless, the extent and urgency of investment was irregular. The Navy – and therefore the Dockyard – had its own pattern of boom-and-bust. Booms generally coincided with real or perceived threats to British interests, or to a need to implement innovations in naval architecture and armament. Boom periods brought jobs, and a degree of prosperity. They also brought a heightened sense of place among the civil population: pride in association with the Navy, its ships, and its exploits. Throughout *Pax Britannica* the Royal Navy was busy escorting troopships from Portsmouth to trouble spots and imperial bases and its ships were sent into action on many occasions. Early in Victoria's reign were the Opium Wars of 1839-42 and 1856-60. Then, when Russia sought to expand its influence in the Balkans, the French and British joined forces to resist it, resulting in the Crimean War (1854–56). The allies were victorious but some harsh lessons were learnt. Explosive shells,



Portsmouth in 1895. By the end of the century, most of the western side of Portsea Island had been developed at a high density.

introduced in the 1820s, were deployed by both sides in the Crimea. They ripped wooden hulls to pieces. Fixed mountings for guns meanwhile proved to be tactically restrictive. Consequently, there was a rush to build ironclad ships with turret-mounted guns. But although Britain and France had been on the same side in the Crimean War, the countries were mutually mistrustful. The construction of a new arsenal and dockyard at Cherbourg during the 1850s intensified the fear of possible French invasion; and the launch of the first ironclad frigate, *La Gloire*, in 1858 triggered a naval arms race and concern about coastal defence. Britain's response included the battleship-sized ironclad, HMS *Warrior*, commissioned in Portsmouth in 1861. The French emperor Napoleon III reputedly described *Warrior* as 'a black snake amongst rabbits'. The ironclads, in turn, prompted a race in dockyards to produce ships with big armour-piercing guns and, reciprocally, ever-thicker armour. The development of torpedoes in the 1860s led to the development of torpedo boats, and they in turn required dockyards to produce torpedo boat destroyers (later simply called destroyers).

During the Russian-Turkish War (1877-78) Britain sent a fleet of battleships to deter Russia from entering Constantinople, and the fleet was in action again in 1882 to ensure control of the Suez Canal. Meanwhile, the international configuration of alliances had changed again after France's humiliating defeat at the hands of Prussia in 1870 and the subsequent unification

HMS *Warrior*. Her commissioning was a response to the 1858 launch of France's first ironclad, *La Gloire*. *Warrior*'s radical design featured an armoured box that housed the main guns, boilers and engine.

of Germany. By the mid-1890s Britain was confronted with an increasingly ambitious programme of German naval construction, a Russian-French alliance, and expansionism on the part of the newly-industrializing United States and Japan. In response, Britain formalized its famous 'two-power standard' through the Naval Defence Act of 1889. The standard called for the Royal Navy to be as strong as the world's next two largest navies combined (at that time, the French and Russian navies) by maintaining a fleet of battleships at least equal to their combined strength. Diplomacy, including rapprochement with the United States, an Anglo-Japanese Alliance, and the Entente Cordiale with France helped to delay an arms race and prevent the Royal Navy being over-extended. But by the turn of the century it was clear that the rapidly-growing Imperial German Navy had become a serious challenger to the Royal Navy's preeminence. A series of Naval Laws in Germany set a target of maintaining a 2:3 ratio between the German navy and the Royal Navy. Britain's response was a secret building programme of Dreadnaught-class battleships: 'castles of steel'[11] with turbine engines and an array of large-calibre guns that would immediately make all other battleships obsolete.

[11] Massey, R. K., *Castles of Steel*. New York: Random House, 2003 .

Casualties of Peace

In between these peaks of activity the Admiralty ruthlessly scaled back its Dockyard operations whenever it could. Repeated experience of draconian Dockyard dismissals contributed to an unwelcome familiarity with economic hardship and added a very different dimension to the character and sense of identity of the city. Hundreds of workers had been laid off at the end of the Napoleonic Wars, reducing civilian employment in the yard from more than 3,500 to just 2,200 by 1822 and then to 1,600 at the start of Queen Victoria's reign in 1837. After the Crimean War 220 artificers were discharged and all of the labourers taken on during the war were dismissed. After the arms race of the 1860s more than 1,500 dockyardmen were dismissed: a blow severe enough to prompt a fund to be set up to pay for them to emigrate with their families. The Admiralty made the troopship *Crocodile* available for almost 400 people to leave for Canada in 1869 while another 776 followed in the troopship *Serapis* the following year when, ironically, 700 men were taken on in the Dockyard because of worries about the Franco-Prussian War; only for a similar number to be let go in 1871.

Repeated experience of draconian Dockyard dismissals contributed to a familiarity with economic hardship

With the introduction of steam and steel and the consequent demise of wood and sail the skills required in the yard were also changing. In 1878 there was a net loss of 700 men in the yard as 1,400 blacksmiths, carpenters, sawyers, shipwrights, ropemakers, and labourers were discharged and 700 boilermakers, mechanics, and riveters were hired in their place. In 1887 another mass dismissal, this time of 1,000 men, again prompted the Admiralty to provide assisted passage to Canada in troopships.

The civilian population of the city reflected the boom-and-bust economy of the Dockyard. In the quarter century after the Napoleonic Wars the city's population grew by less than 8,000, but in the 1840s, when the Dockyard labour force expanded to some 6,000 after the decision to convert the Navy to steam power, the town's population grew from 53,000 to 72,000, a growth of 36 percent. By 1849 almost one in three of or the total male labour force of the town worked in the Dockyard. During the 1850s, when there were fears of a French invasion, the town grew by a further 23,000, or 31 percent, to 95,000.

Gateway of Empire

The infrastructure of the Dockyard itself was reshaped in response to the changing technologies and increasing demands of the Navy's global roles. By the 1830s the Admiralty had committed to steam power and by the early 1840s they understood the advantages of screw-driven steamships over paddle-driven ships in terms of power efficiency, the capacity to carry more guns, and the vulnerability of propulsion equipment to surface attack. To demonstrate the power advantage of screw propulsion the Admiralty staged a contest at Spithead in 1845 between paddle-wheel vessel *Alecto* and the propeller driven *Rattler*, both vessels being otherwise more or less identical in terms of power and tonnage. They were secured stern to stern and, at the given signal, applied their full power. After a short pause the paddle-wheel *Alecto* was towed backwards by the screw driven *Rattler* at a speed of two and a half knots. The twin-bladed screw of *Rattler* is displayed in the arcade of Storehouse No. 11 of the Historic Dockyard.

Committed to the new technology, the Admiralty hurried to lay down new ships. The first to be launched in Portsmouth was a small gunboat, HMS *Rifleman*, in 1846. A sloop, *Plumper*, and a frigate, *Arrogant*, were launched in 1848 but by then it was clear that to build larger steam-powered ships

Mast House. Completed in 1845, it was one of the earliest buildings where load-bearing iron-framed construction was used on a massive scale. Small craft could be lifted internally through to the upper floors. It now houses an interactive indoor attraction as part of the Historic Dockyard complex.

would need new facilities. In 1844 the Admiralty annexed the area known as Portsea's 'New Buildings', demolishing 230 houses and thereby clearing out a rowdy and impoverished community adjacent to the Yard. In its place the Admiralty built three new docks, a dock pump house, and a Steam Basin the size of four football pitches. Underscoring the arrival of the age of steam, a branch railway line into the dockyard opened the following year, allowing locomotives to take over some of the work of horses and convicts. A few years later a new smithery and a new iron and brass foundry were added. The new infrastructure took advantage of another new technology: iron-framed building construction. The single-span roofs installed to cover Building Slips Numbers 3 and 4 were precursors of the iron-and-glass canopies of the great Victorian railway stations. The iron-framed Mast House, built in 1845, provided a huge unobstructed floor space adjacent to the old mast pond. Later repurposed as a boathouse, it now houses an 'Action Stations' exhibit in the Historic Dockyard.

The shift to ironclad ships and the arms race with the French in the 1860s suddenly meant that even this new infrastructure was insufficient while some of it was obsolete. To accommodate the construction and maintenance of big new ironclad battleships the Admiralty undertook what came to be called the Great Extension. The overall size of the Dockyard was trebled through a combination of the reclamation of 94 acres of harbour mudflats and the clearance of a similar area of the Pest House Fields and Portsea fortifications. The Lion Gate from the now-demolished town walls was later incorporated into a rebuilt Semaphore Tower and renamed 'The Gateway of Empire', in recognition of the role of the Navy in securing and maintaining the British Empire.

In the race with Germany for naval supremacy a battleship was launched in Portsmouth every year

Already one of the largest manufacturing platforms in England, the building programme initiated by the Great Extension saw the Dockyard become a unique industrial complex by the outbreak of war in 1914. At the heart of the expansion was the enormous (22-acre) No. 3 Basin that was accessed through two locks and supplemented by two other fitting-out basins along with a range of linked workshops for ironclads. A 'Goliath' steam dredger was deployed in digging out the basin and the mud and clay from the excavations was carried away by means of a light railway and used to enlarge Whale Island, which became the site of a new naval gunnery school. The excavated Stamshaw clay also proved to be excellent for making bricks for dock construction, and convicts were put work in an on-site brickworks. Now three times the size of the yard at the beginning of Victoria's reign, the Admiralty enclosed it with a new wall, long sections of which can still be seen along the western side of Hope Street and Flathouse Road.

Dockyard Extension Wall. The 180-acre Great Extension programme that began in 1864 was enclosed with a new wall with oriel gun bastions, each with three gun slits.

The expanded yard began producing ironclads. The first to be built was the *Devastation*, laid down in 1869 and launched in 1871. She was the first ocean-going warship in the Navy to have guns in revolving turrets, and her hull was protected by 12-inch armour plate. The Extension allowed increasingly large vessels to be built. *Inflexible*, a battleship with four 16-inch guns, was launched in 1876 with armour cladding two feet thick on her hull. She was also the first major warship to use electricity. Another groundbreaking vessel from the yard was the *Colossus* (1881), the first all-steel battleship and the first to have breech-loading guns. She was soon obsolescent.

Rapidly escalating German naval ambitions set off another arms race and by 1905 the Admiralty had secured permission for a massive investment to produce ships capable of outgunning any other afloat. A revolutionary new class of battleship had been designed, powered by steam turbines and carrying an awesome array of big guns. The first of this new class of ships, the *Dreadnought*, was laid down that year. Amid some secrecy, Portsmouth Dockyard workers had her ready for launch in just over four months, and less than eight months later she was fitted out and on sea trials. The pace of building astonished the world, and her speed and fire-power left all other battleships, including the Royal Navy's own, decisively obsolete. In the ensuing race for naval supremacy with Germany one battleship was launched in Portsmouth each year, prototypes of rapidly-improving Dreadnought classes that included *Bellerophon, Neptune, Orion, King George V, Iron Duke,* and the super-dreadnoughts *Queen Elizabeth* (the first oil-fired battleship) and *Royal Sovereign*.

HMS ***Dreadnaught.*** Her entry into service in 1906 revolutionized naval power. She was the first capital ship to be powered by steam turbines, making her the fastest battleship in the world at the time of her completion. Painting by H.J. Morgan.

The Dockyard had become a vast industrial enterprise, constantly growing. The era of Dreadnaught-class battleships prompted the enlargement of some of the smaller docks and building slips, while operations in the yard were linked by a railway network with some 25 miles of track. The world's largest coaling vessel, the C1, was moored off Rat Island in the harbour to service the

growing fleet, and the world's largest floating dock was moored in Fountain Lake, just south of Whale Island. With this addition Portsmouth could dry-dock up to five Dreadnoughts at any one time. More than 10,000 were employed in the yard, and with so many ships in port it was not unusual for as many as 20,000 sailors to be billeted in the town.

Strong Island

Only a few of the town's elaborate defences survived the nineteenth century: notably the Round Tower, the Square Tower, the adjacent bastions and ramparts, and Southsea Castle. The expansion of the Dockyard required the removal of much of the obsolete fortification on the landward side of Old Portsmouth and Portsea, while the threat from new kinds of munitions and tactics required the construction of an entirely new set of defensive works. New breech-loaded guns with rifled barrels firing explosive shells not only had improved accuracy but also had vastly increased range. Potential enemies now had to be kept at a distance of several miles, which meant pushing the defensible area around the naval base well beyond Portsea Island. In 1859, amid increasing fears of a French invasion, the government appointed a Royal Commission on the Defences of the United Kingdom. The Commission's report the following year led to a major reframing not only of Portsmouth's cityscape but also the seascape of the Solent. On land, the principal new element was a line of low-slung brick forts along the crest of Portsdown Hill, from Fareham to Farlington: Fort Wallington, Fort Nelson, Fort Southwick, Fort Widley, and Fort Purbrook. Facing north to guard against a landward attack, they made a formidable defensive line. They were state of the art, with polygonal shapes that maximized both the size of their batteries and their field of fire. They featured bomb-proof passageways and had quarters for hundreds of troops.

Potential enemies now had to be kept at a distance of several miles, which meant pushing the defensible area well beyond Portsea Island

Similar forts were built all around the Solent. The Gosport Advanced Line – Fort Gomer, Fort Grange, Fort Rowner, Fort Brockhurst, and Fort Elson – stretched from Stokes Bay across the peninsula to the western side of Portsmouth Harbour. Along the western approaches to the Solent on the Isle of Wight were Golden Hill Fort, near Freshwater, Fort Albert, near Cliff End, and new batteries at Hatherwood, Warden Point, and The Needles. Across from Fort Albert, at the narrowest point of the western approaches, Hurst Castle was given a big new battery. Around the eastern end of the Solent, Fort Gilkicker, Fort Monckton, and the Browndown Battery were added to the mainland shore, while Fort Cumberland and Southsea Castle were upgraded, Lumps Fort was reconstructed, and two batteries were added further along Eastney beach, flanking the new Royal Marine Barracks. Across the Solent on the Isle of Wight were Bembridge Fort and batteries at Sandown, Redcliff, Yaverland, and Ryde.

The Palmerston Forts. In 1860 the prime minister, Lord Palmerston, took up the recommendations of a Royal Commission report on the defence of the United Kingdom that had been prompted by fears of a French invasion. To provide landward protection for the dockyard, an arc of detached forts were built around Portsmouth to the north and west: six of them sited along the crest of Portsdown from Purbrook to Fareham, and another five constituting the Gosport Advanced Line. Reinforced coastal batteries and sea forts protected the seaward approaches. By the time they were completed the French threat had diminished and the fortifications came to be dubbed 'Palmerston's follies'.

Photos, clockwise from top left: **Fort Widley, Fort Brockhurst, Fort Nelson,** and **Hilsea Lines.**

(opposite) **Spitbank Fort.** Completed in 1878, it had taken almost 20 years to build, largely because of the difficulty of constructing such a large structure on mud and quicksand. It now functions a s a luxury hotel.

But the eastern Solent is very wide, so to complete the defensive ring around Portsmouth and its deep-water approaches a series of sea forts were built on sandy shoals at Spitbank, Horse Sand, No Man's Land, and St Helen's. The sandy, muddy seabed meant that the forts required foundations of stone and concrete 24 feet deep. The circular ramparts of the forts were built of Cornish granite and Portland limestone 48 feet thick, with iron plates built into the masonry. Inside each of the heavily-armed forts were a munitions store, an artesian well for fresh water, storage for coal and victualling, and accommodation for up to 150 personnel. A line of large concrete blocks, still visible today at low tide, was installed due south of the Southsea shore, extending towards Horse Sand Fort. A similar line was constructed between St Helen's Fort and the Isle of Wight, ensuring that all approaching shipping must pass between the two batteries. Portsmouth and its harbour was now one of the most strongly defended places in the world, entirely ringed with forts and batteries.

No Man's Land Fort. Circular in plan and heavily armoured in concrete and stone, the fort had two gun floors, with 25 guns on the upper floor and 24 on the lower. It now functions as a 'party' hotel.

Coast Barrier. Concrete blocks extending towards Horse Sand Fort. ensured that all approaching shipping must pass within range of its guns.

The cityscape of Portsea Island was meanwhile transformed to accommodate the thousands of soldiers and sailors who were assigned to the Dockyard and the city's defences, or who were mustered for transit to overseas garrisons. The construction of barracks followed the same rhythm as investment in the Navy and the Dockyard, the booms driven by real or perceived threats to British interests. The construction of the Royal Artillery Barracks at Hilsea and the extension of the Cambridge Barracks on High Street coincided with the exigencies of the Crimean War. The construction of the Royal Marine Barracks at Eastney coincided with the threat of French aggression in the 1860s. Set in extensive grounds, the barracks had its own library, billiard

Clarence Barracks. In 1893 the Clarence Barracks were added to the Victoria Barracks complex in Old Portsmouth. This block in French Chateau style was the officers' quarters and now houses the City Museum.

rooms, gymnasium, church, swimming baths, theatre, and school along with a canteen, detention quarters, drill hall, parade ground, drill shed, and a landmark six-storey water-tower (later converted to a clock tower). The officers' quarters, Teapot Row, backed onto tennis and croquet lawns.

The creation of a great complex of barrack buildings in Old Portsmouth coincided with the surge of British imperial expansion in the 1880s and the escalation of German military ambition in the following decades. Clarence Barracks and Colewort Barracks were enlarged and Victoria Barracks were built to the east of the Cambridge Barracks on land freed up by the demolition of Georgian-era ravelins, levelled by convict labour. Ravelin House was built there to accommodate the Garrison Commander. The Navy also took advantage of land freed up by the demolition of Portsea's old landward fortifications, building the Royal Naval Barracks (now HMS *Nelson*) in a complex on the north side of Queen Street.

Cambridge Barracks. All through the Napoleonic Wars it was commonplace to billet excess numbers of soldiers in hotels, inns and private houses. But the number of troops passing through Portsmouth in the Crimean War made it clear that purpose-built accommodations were necessary. Cambridge Barracks opened in 1856, just as the Crimean War ended. The Officers' quarters on High Street were taken over by Portsmouth Grammar School in 1927.

Eastney Barracks. Until the construction of the Royal Marine Barracks in 1863-67, Eastney's farmland remained relatively untouched. The self-contained military township of the barracks was sold off in 1995 and converted to housing.

Officers' mess, HMS *Victory*. 1899-1903, designed by Sir Henry Pilkington. Now the Wardroom of HMS *Nelson*.

Other Industry

Not surprisingly, the rest of Portsmouth's economy was overshadowed by the Dockyard and the Navy. The Admiralty's long-standing policy of self-sufficiency meant that the huge investment in Dockyard industry did not have much of a multiplier effect on private-sector enterprise in the city. Civilian employment outside the Dockyard was mainly restricted to residential construction and the provision of everyday goods and services. Civic leaders recognized the problem and there were efforts to promote economic development. In particular there was a proposal by the town council in the 1850s to dredge the Mill Pond and convert it into commercial docks capable of accommodating large steamships. This would have been attractive: a sequestered harbour close to a new railhead, with extensive (and well-protected) anchorage nearby in the Solent and a pool of local labour well versed in the required skill sets. It was dismissed out of hand by the War Office. Similarly, the Admiralty vetoed proposals to extend the railhead to the Camber and expand commercial facilities there.

The huge investment in Dockyard industry did not have much of a multiplier effect on private sector enterprise in the city

The one industry of more than local significance in Portsmouth was the manufacture of apparel, and in particular the production of women's corsets ('stays', as they were known at the time). At the beginning of the Victorian era, before the big expansion of the Navy and the Dockyard, the manufacture of footwear and apparel (including stays) accounted for more than half of Portsmouth's working population. Thereafter, from mid century until 1911, the figure ranged between 38 and 45 percent. One reason for this, of course, was naval tailoring: the navy required sailors and officers to purchase their own uniforms until the latter part of the nineteenth century. One of the most

prominent naval outfitters was Gieves, which became a fixture on The Hard before moving at the end of the twentieth century to Gunwharf Quays. The longevity of the firm clearly has something to do with its resourcefulness: when, during the Crimean War, the absence of the fleet meant that trade fell away, the firm chartered a large yacht and sailed for Sebastopol with uniforms and tailors.

The main reason for the importance of the apparel industry was the presence of a reserve army of cheap female labour

The main reason for the importance of the apparel industry in Portsmouth, though, was the presence of a reserve army of cheap female labour. With the bulk of male employment in low-wage positions in the Dockyard and vulnerable to sudden downturns in the boom-and-bust cycle of naval activity; and with the presence of thousands of wives of soldiers and sailors whose pay was intermittent as well as poor, Portsmouth women were keen to work. It was a situation made for the domestic 'putting-out' system, whereby agents would drop off raw materials at women's homes, collecting the finished or part-finished items later and thereby avoiding the overhead costs of space and utilities. Many of these domestic workers were seamstresses, and most of them found themselves shirtmaking.

Treadgold's warehouse, Bishop Street. Treadgold's foundry and ironmongery shop were established in 1809 and the firm traded from these 1830s-built premises until 1988, when they were converted to a museum.

What made Portsmouth's apparel industry distinctive, however, was the manufacture of corsets. Responding to fashion-led demand, the number of stay-makers in Portsmouth grew from around 600 in 1861 to close on 3,000 in 1911. Portsmouth became Britain's most important centre for the corset industry, supplying both national and European markets. At first, stay-making was based on the putting-out system, but by the 1870s local entrepreneurs with patented designs began to establish factories in the town's expanding working-class suburbs. These larger enterprises generated a small multiplier effect in the form of firms producing spring steel for corsets and cardboard boxes for their packaging and shipment.

Portsmouth Pubs

Portsmouth was also famous for its pubs, and pubs meant breweries. In the 1860s there were no fewer than 24 named breweries in Portsmouth, with contemporary maps showing an additional 18 small, unnamed breweries, mostly associated with individual pubs. The nineteenth century saw a steady process of horizontal integration, the more successful firms absorbing the smaller ones or just out-competing them. By the end of the century Long's, Brickwood's, Carter's and Jewell's were among the largest.

Although the breweries did not employ large numbers, they had a significant impact on the cityscape. In order to promote competition among brewers the Beerhouse Act of 1830 had liberalized the regulations governing the sale of beer, allowing almost any building to be used for selling drink. The new beerhouses were in direct competition with the better-regarded public houses run by larger breweries, and in response the big breweries began to brand themselves by way of pub designs that would stand out from their surrounding terraced neighbourhoods. As new residential districts were developed, pubs were typically located strategically on corner sites.

The Portsmouth architect A.E. Cogswell was involved in designing or redesigning some sixty pubs and hotels over the course of his career. The signature elements of his distinctive style for Brickwoods were half-timbered facades with glazed brickwork and, whenever possible, a distinctive skyline with a gambrel-roofed (witch's hat) turret. Good examples are The Talbot, Goldsmith Avenue (now converted to residential flats), The Pelham Arms, Chichester Road, and The Seagull, Broad Street (now an estate agent's office). Competition also pushed brewers to attend to the comfort and style of their pubs. By comparison with older pubs, the flagship pubs of the second half of the nineteenth century were huge, with ornate interiors featuring etched-glass windows, elaborate joinery, extravagant plaster moulding, and gilded mirrors.

Portsmouth still had a legacy of many older pubs. In 1871 the town had 323 public houses and 554 beer houses: a drinking establishment for every 130 persons (including minors). The Navy and Dockyard workers supplied thirsty clienteles. There were particularly high densities of drinking places in Old Portsmouth, Portsea, and Landport, with the greatest concentrations along Queen Street and along The Hard. It was here that Portsmouth acquired a reputation for immorality and rowdy behaviour that survives to the present day. But pubs were a critically important element of community and society, and key contributors to the town's self-identity and sense of place. With Portsmouth's atypical employment structure, pubs acted as an informal labour exchange, especially for dockyard recruitment and casual labour.

It was here that Portsmouth acquired a reputation for immorality and rowdy behaviour that survives to the present day

Neighbourhood Landmarks (clockwise from top left)**.**

The Talbot, Goldsmith Aveue. Built for Brickwood's Brewery in 1896, designed by A.E. Cogswell; converted to a hostel in 1981.

The Nell Gwynn, Jessie Avenue. Another Brickwood's pub, this one designed by A.H. Bone and opened in 1892.

The Fawcett Inn, Fawcett Road. Also by A.H. Bone a for Brickwood's and opened in 1886.

The White Swan, Guildhall Walk. Built in 1906, A.H. Bone again the architect.

The George and Dragon, Kingston Road. Another Cogswell design for Brickwood's Brewery.

They were sometimes used as places to pay out wages, to collect mail, or to organize clubs. For sailors ashore,

> *The drinkseller provided lodgings; he could change the bill in which the sailor received his back pay; he knew who were the best ... to provide a uniform, as well as the best pawnbrokers to buy Indian bangles, Japanese curios, ivory carvings, foreign coins, and so on. The drinkplace also provided food, entertainment and women. What more could a sailor need?* [12]

[12] Field, J. L., *Bourgeois Portsmouth: Social Relations in a Victorian Dockyard Town, 1815-75*. Doctoral dissertation, University of Warwick, 1979, p. 588.

Heavy drinking was blamed by Victorian moralists for crime, debt, violence, poverty, laziness and irreligion. Pubs and drinking culture were also closely associated with the incidence of prostitution: another of Portsmouth's claims to fame.

Reform

The rowdiness, drunkenness, and licentiousness associated with pubs and beer houses were the least of the town's problems, however. Rapid population growth (a 31 per cent increase in the town's inhabitants between 1851 and 1861, for example) in the confined spaces of Portsea Island, combined with the chronic poverty endured by much of the population, led to scandalously crowded conditions, even by Victorian standards. Warrens of slums with narrow, poorly lit, unpaved streets and alleys with no proper drains or satisfactory water supply were breeding grounds for disease. The Salvation Army described their own religious and social work in Portsea as 'a plunge into one of the darkest and most heathenish neighbourhoods in the land'.[13]

[13] Webb, J. et al., *The Spirit of Portsmouth. A History.* Chichester: Phillimore, *1989*, p. 80.

An outbreak of cholera in 1848 prompted a review by the General Board of Health, chaired by its Superintendent Inspector, Robert Rawlinson. Before he could complete his report the problem was given added emphasis in 1849 by the return of cholera, with 676 deaths occurring in six weeks, and a final toll of over 1,000 victims. When the report was published the following year it documented the absence of basic sanitary infrastructure, the complacency of the town's Paving Commissioners, the lack of adequate powers for local government, and the detrimental effect of the town's fortifications on natural drainage. The report also documented the ghastly living conditions endured by many inhabitants and noted the consequences. One in five of the infants born in the town, for example, did not live beyond their first year.

The Rawlinson report called for reform: all the more urgent, it argued, because of concern for the health and efficiency of sailors and troops stationed in the town. But for a long time Portsmouth lagged rather than led any kind of progressive reform. With Portsmouth's unusually small civilian bourgeois class,

Neighbourhood Landmarks (clockwise from top left).

The Old Canal Inn, Shirley Aveue. Built in 1930 and named after the abandoned Portsmouth and Arundel canal that ran close by.

The Rutland Arms, Francis Avenue. Once located close to Jessie Road railway halt, it was originally a Pike Spicer pub, designed by A.E. Cogswell.

The Mermaid, New Road. Also by Cogswell for Pike Spicer Brewery.

The Eastfield, Eastfield Road. Built in 1906 for Portsmouth United Breweries; designed by A.E. Cogswell.

The Tangier, Tangier Road. Built in 1912 for Portsmouth United Breweries and designed by A.E. Cogswell. Now a convenience store.

(opposite) **The Seagull, Broad Street.** Originally a Jewell's Brewery pub, it opened in 1900. After closing in 1970 it was converted to a cafe and it is now an estate agent's office.

> *No-one could persuade the ratepayers to finance a public library, naked swimmers continued to scandalize carriage passengers who drove along the Esplanade, school attendance fluctuated with parental needs, most adults steered well clear of organized temperance, the able-bodied poor received outdoor relief, the pubs did a roaring trade, the churches remained half-empty, soldiers and sailors spent their money on prostitutes before listening to sermons at the Servicemen's Homes, and so on. No charity or good cause received half the enthusiasm or good will that went into the Co-operatives, or won half the membership of the Friendly Societies. Working people knew rather more about their own needs than was often supposed; interference from outside was met by sullen disregard, occasional abuse, and sometimes outright repudiation.*[14]

[14] Field, J. L., *Bourgeois Portsmouth: Social Relations in a Victorian Dockyard Town, 1815-75*. Doctoral dissertation, University of Warwick, 1979, p. 633.

Reformers did eventually make headway in Portsmouth, not least because of the scale and urgency of problems nationally. The productivity of industrial workers, drawn in unprecedented numbers into the crowded slums, was compromised by poor nutrition, life-threatening diseases, and occasional epidemics of smallpox, cholera, typhoid and even bubonic plague. Among the better-off, educated classes there grew an abiding fear of the social and physical consequences of this exploitation and degeneration. The alienated 'mob' and its squalid and unhealthy neighbourhoods were seen as a threat to their physical well-being and the social order on which their status and livelihoods depended. Employers and the central government were fearful of mob protest turning into mob rule, especially after the revolutionary events across Continental Europe in the 1840s.

Thanks to succession of commissions in the 1840s (including the Select Committee on the Regulation of Buildings, the Poor Law Commission Report on the Sanitary Condition of the Labouring Population, the Royal Commission on the Health of Great Towns, the Commission for Inquiring into the State of Large Towns and Populous Districts, and the Metropolitan Sewers Commission) it had become clear that industrialization, urbanization and social change required new cultural, political and social institutions to cope with the unprecedented complexity and unwanted side effects of the era.

In response to these official anxieties, charitable associations and philanthropic trusts such as the Association for Promoting Cleanliness Amongst the Poor and the Society for Improving the Condition of the Labouring Classes emerged, though most such activity was restricted to London. It was not until the latter part of the century that the central government felt obliged to step

in, accepting that local and charitable endeavours were insufficient to cope with the problems associated with slum districts. The government's first major piece of legislation was the Artisans' and Labourers' Dwellings Act (1875), which allowed local authorities to buy and demolish unfit housing. A Public Health Act was passed in the same year, giving local authorities the power to establish by-laws concerning construction specifications, sanitation, street widths and building lines. Dismaying reports into squalid housing continued for another decade before parliament passed the Housing of the Working Classes Act, granting the power to local authorities to shut down unhealthy houses and making it illegal for landlords to let property which was below elementary sanitary standards.

In Portsmouth, it was the working classes themselves who provided some of the first significant responses

In Portsmouth, it was the working classes themselves who provided some of the first significant responses to impoverished conditions through organizations like the Friendly Societies, blanket societies, coal societies and the Co-op. In the latter part of the century, evangelical ministries made their contribution through mission halls and soup kitchens. Soldiers and sailors – deserving yet apparently in need of reform – were a particular target group for evangelical Christian campaigners. A Royal Sailors' Home had been set up in Queen Street in 1849 to look after sailors and marines who were 'between ships', but it did not have capacity to cater for ordinary seamen. The new building of the Royal Maritime Club now stands on the site.

A quarter-century later, Sarah Robinson opened a Soldiers' Institute in the renovated Fountain Inn on High Street. She had selected Portsmouth for her good works because it was 'the worst place I know of'. In 1882 Agnes Weston opened the Portsmouth Royal Sailors Rest on Commercial Road. Originally in a disused music hall, it grew to include a cafeteria, baths, a writing room, and banking facilities as well as 'cabins' for residents. Sailors were offered evening classes and the option of signing the temperance pledge and in return receiving three pence for a bun and a cup of tea. A large Wesleyan Sailors' and Soldiers' Home was opened nearby in 1908 and taken over by 'Aggie's' after the Commercial Road premises were bombed during the Second World War. The Royal Sailors Rest currently occupies purpose-built office premises – 'Castaway House' – in Tipner.

New Landmarks

Meanwhile, the transition to the industrial era required an entirely new infrastructure, a literate population and a more orderly and healthy society that could be sustained only through an array of local civic institutions: schools, libraries, public baths, police stations and so on. New water and sewage systems had to be installed. New educational institutions emerged to ensure an adequately prepared workforce; and new state institutions emerged to care for the sick and the deserving poor and to incarcerate the not-so-deserving. Many of their buildings – schools, orphanages, asylums, museums, hospitals, prisons and so on – needed large new structures and grounds, and as a result tended to be located on cheaper fringe sites, to be surrounded by residential development just a few decades later. In the expansive mood of the Victorian and Edwardian eras, the buildings housing these institutions were designed to symbolize both civic pride and local identity. As a result, Portsmouth's cityscape became punctuated by the landmark buildings of its municipal geography.

Fundamental to the health and efficiency of the modernizing city was the provision of fresh water and the disposal of sewage. Until the nineteenth century Portsmouth's households were supplied with water from shallow wells sunk into the porous sand or gravel of Portsea Island and fed by surface drainage. In the 1850s less than five thousand of some fourteen thousand inhabited houses had piped water. The Borough of Portsmouth Waterworks Company, formed in 1857, developed the infrastructure to draw from springs at Bedhampton and Havant and pump water about two and a half miles to sand filter beds and reservoirs constructed on Portsdown Hill. This provided a constant supply of fresh water to the entire city by 1880. Mains sewage and drainage was introduced in the 1860s. An engine house at Eastney (now restored and administered by Portsmouth Museums) pumped the effluent into the Solent.

The Pumphouse, Eastney. Built in 1887 to house two compound beam engines by James Watt, the pumphouse was part of a state-of-the-art complex that included a boiler house and gas engine house.

Another important improvement to public health was the innovation of municipal cemeteries. As in other rapidly-growing cities, Portsmouth had filled up its small churchyards, burial grounds and vaults, resulting in routinely gruesome practices with appalling and dangerous results. A small private cemetery had opened in Mile End in 1831 (now covered by a car park for the ferry terminal), operated by the Portsea Island General Cemetery Company. It soon proved insufficient. A local doctor, Henry Slight, commented in 1850 on the burial grounds in available in the city. St Mary's churchyard, Portsea, was 'full even to repletion' and of St Thomas's, he noted that 'if the walls were to give way, the bodies would fall into the street ... The gasses of putrefaction ... readily escape, poisoning the atmosphere and dealing death and disease in all directions.'[15] The combination of a pressure group – the National Society for the Abolition of Burial in Towns – and continuing outbreaks of cholera resulted in the Burial Act of 1854 which enabled town councils to form Burial Boards using the Borough Rate to establish municipal cemeteries. These new cemeteries required large undeveloped sites of a kind that could be found only on the fringes of built-up areas. In this instance Portsmouth was quick off the mark, acquiring 17 acres on the eastern edge of Southsea in 1854 from architect and developer Thomas Ellis Owen to establish Highland Road Cemetery. The huge (52 acre) Kingston Cemetery was opened two years later. Milton Cemetery (25 acres) was opened in 1911.

[15] Stapleton, B., 'The Admiralty Connection: Port Development and Demographic Change in Portsmouth 1650-1900'. In Lawton, R. and R. Lee, *Population and Society in West European Port Cities, c. 1650-1939*. Liverpool: Liverpool University Press, 2001, p. 246.

Highland Road Cemetery. Thomas Ellis Owen sold the land to the city Burial Board for the first phase of the cemetery and when the Board's original architect failed to produce plans, he designed his own and built the lodge, chapels and wall.

Kingston Cemetery. Opened in 1858, the original cemetery was full by 1866. This north gate was added after the cemetery had doubled in size in the 1890s.

These new cemeteries had a significant impact on the cityscape: sequestered green spaces that offered an opportunity for High Victorian buildings, gates, and funerary monuments, many of which reflect Portsmouth's naval heritage. The lodge, chapels and wall around Highland Road Cemetery were designed by Thomas Ellis Owen and were of a piece with his church in Southsea (see p. 91). Kingston Cemetery, laid out by Charles Smith, Surveyor to the Portsea Burial Board, with its buildings designed by local architect George Rake, is listed (Grade II) by English Heritage.

Fringe sites were also sought for the buildings of a variety of new kinds of public institution that, for one reason or another, needed to be well away from the built-up area. A spate of national legislation brought into existence a variety of new buildings for the expanding public realm, for the relief of poverty and ill health, and for improved education. The Poor Law Act of 1834 had paved the way for intimidating new workhouse buildings designed to be a visible deterrent to the 'idle' poor, and Portsea Island Union Workhouse was built on St Mary's Road in 1845. Prisons were also designed to have a forbidding appearance. Kingston Prison was built in the 1870s on a site next to Kingston Cemetery. Designed by George Rake, it had an imposing castellated and fortified appearance, with radiating cell blocks that were a derivative of Jeremy Bentham's panopticon system, whereby prisoners in every wing could be observed at all times from a central office.

Isolation hospitals and asylums also needed large sites well away from congested areas. Portsmouth's first modern hospital, the Royal Portsmouth Hospital, was built in 1849 on land freed up by the demolition of Portsea's old landward fortifications. By the late 1860s it was recognized that the mentally ill should be treated in hospitals separate from those suffering from infectious fevers and smallpox. By the following decade Portsmouth town council had made the decision to build a 'lunatic asylum' to the east of the village of Milton. On a 37-acre site, St James Hospital was a campus-like setting that included a dairy, laundry, brewery, shoe makers and tailors, as well as a farm and a church. The grounds of the hospital were left to the patients themselves to lay out, plant and tend as part of their treatment. Milton was also selected for the site of a new infectious diseases hospital (1884) and general hospital (St Mary's, 1898).

(opposite) Top: **St James Hospital.** In 1875 Portsmouth Town Council took up the powers afforded by the 1853 Lunatic Asylums Act and built the hospital in the countryside near Milton. Designed by. George Rake and opened in 1878.

Bottom: **Kingston Prison**. Built 1874-77 to the designs of George Rake, it closed in 2013 and was sold off to developers to be converted to housing.

Parks

People's social well-being was also a focus for Victorian reformers. The provision of parks became an increasingly important aspect of this. Public parks were seen by Victorians as a means of providing civilizing, spiritually uplifting and socially instructive settings for people. Access to a naturalistic landscape, a secluded escape from the dirt and noise of the town and a place for leisure and recreation, it was believed, would foster restraint and decorum and cultivate feelings of honesty, beauty, wholesomeness, cleanliness and natural order among the labouring classes. Parks were seen as a kind of universal moral force, a source of democratic and fraternal feelings. Portsmouth already had Southsea Common, but even though it had been drained and levelled by the 1840s it was not landscaped or tended, and it could be louche, especially in the evenings. Lit only by weak lanterns whose light served merely to deepen the darkness beyond, it was impossible to keep whores of both sexes and varying degrees of professionalism from taking advantage such a vast outdoor business opportunity.

Public parks were seen by Victorians as a means of providing civilizing, spiritually uplifting and socially instructive settings

Portsmouth's first formal park was Victoria Park, another bonus from the clearance of Portsea's fortifications. It was opened in 1878, a classic of High Victorian design laid out by Alexander McKenzie, landscape designer to the Metropolitan Board of Works. It featured flower beds, gravel pathways, a bandstand, a fountain, and half a dozen monumental memorials. The town council took a lease on Southsea Common in 1884, installing a walk known as the Ladies' Mile for promenading; and two years later the Canoe Lake was formed from a remnant of the Great Morass known as the Minnow Pond. It was seen at first as a facility for sailing model yachts but soon attracted a broader range of recreational uses. More parks were added as the city grew in size and population. A Parks and Open Spaces Committee was established in 1891 and Kingston Recreation Ground was opened later that year. Alexandra Park was created from Stamshaw Common and opened in 1907 and in 1911 the council bought Bransbury Farm and parts of Milton Farm to create Bransbury Park and Milton Park respectively. The following year a small landscaped park was created around Baffins Pond, which had been purchased from the owners of Baffins Farm.

(opposite) Top: **Portsea Island Union Workhouse.**
Opened in 1846, it was converted to flats in 1990.

Bottom: **Nazareth House Orphanage and Convent.**
Dating from around 1888, the orphanage housed 160 girls; it was converted to flats in 1985.

Victoria Park. Laid out in 1878 by the city on land that had previously formed the glacis of Portsea defences. The structure of the park has changed very little from its original appearance. It has a collection of monuments (all Listed grade II) celebrating persons and events in the city's naval history

Baffins Pond. Part of Baffins Farm until 1912, it was sold to the city and opened to the public. By the 1930s urban development had surrounded the site.

Southsea Common. A huge green space of more than 200 acres along the Southsea shoreline, created by draining the Great Morass.

Schools, Libraries and Churches

Meanwhile, the Victorian era saw the introduction of new educational institutions to ensure an adequately prepared workforce. Before 1870, formal education was provided mainly by charity schools. Funded by private subscription, they taught reading, writing and arithmetic; girls were also taught needlework and domestic skills. There were Ragged Schools in Portsea (Richmond Place) and Landport (Old Rope Walk). Portsmouth also had a number of National Schools (run by the National Society for Promoting Religious Education): Clarence Street, Broad Street, Green Row, Portsea, St Jude's (Marmion Road), and St Paul's (Yorke Street). These still left thousands of children without any formal education. But in 1870 the groundbreaking Elementary Education Act introduced compulsory, free, state education for children aged five to twelve (extended to thirteen in 1871). The Act required elementary schools to be established in areas where existing provision was inadequate, to be managed by elected school boards empowered to raise revenues through property rates. The first Board School in Portsmouth was the Boys Department at the Swan Street Lancastrian School. Within ten years there were nine more, scattered around the town's new suburbs – in Garfield Road, Highland Road, Milton Road, New Road, Penhale Road, St Marys Road, Stamshaw Road, Winchester Road, and Wymering Road. They were distinctive edifices with separate playgrounds and entrances for boys and girls, invariably built in pared-down Domestic Revival style, with terracotta detailing and ornate gables.

Although Portsmouth had been reluctant to adopt the Public Libraries Act of 1850, public libraries began to appear towards the end of the century. The

Portsmouth Grammar School. This neo-Jacobean building (1872) was another of A.E. Cogswell's designs. It now houses the Lower School.

Portsea Free School. Originally a Ragged School, this building in Richmond Place was opened in 1850; now part of the University of Portsmouth

Central Library opened in 1883 near the Guildhall, and branch libraries followed at Copnor, Cosham, Elm Grove, Milton, North End, and Portsea. On Fratton Road the Carnegie Trust built one of the hundreds of libraries that it funded in Britain. Southsea architect A.E. Cogswell waived his fee for designing it. Nevertheless, nobody would have argued that Portsmouth was becoming a hotbed of literacy and culture. In that light it is purely coincidental that three of the most popular writers of the era had their formative experiences in Portsmouth within a few hundred yards of one another. Rudyard Kipling lived in Campbell Road for a few years as he was growing up in the 1870s with a foster family; Arthur Conan Doyle moved to Elm Grove in 1872 and wrote his first Sherlock Holmes story (*A study in Scarlet*) there. He was an active member of the local Scientific and Literary Society and a founder member – and goalkeeper – of Portsmouth Amateur Football Club. Meanwhile, a young H.G. Wells was working as a draper's assistant in Hyde's Emporium on King Street.

Along with schools, libraries, hospitals and workhouses, churches and chapels stood out in high relief across the Portsmouth cityscape of cramped Victorian brick terraced housing. As urbanization proceeded and

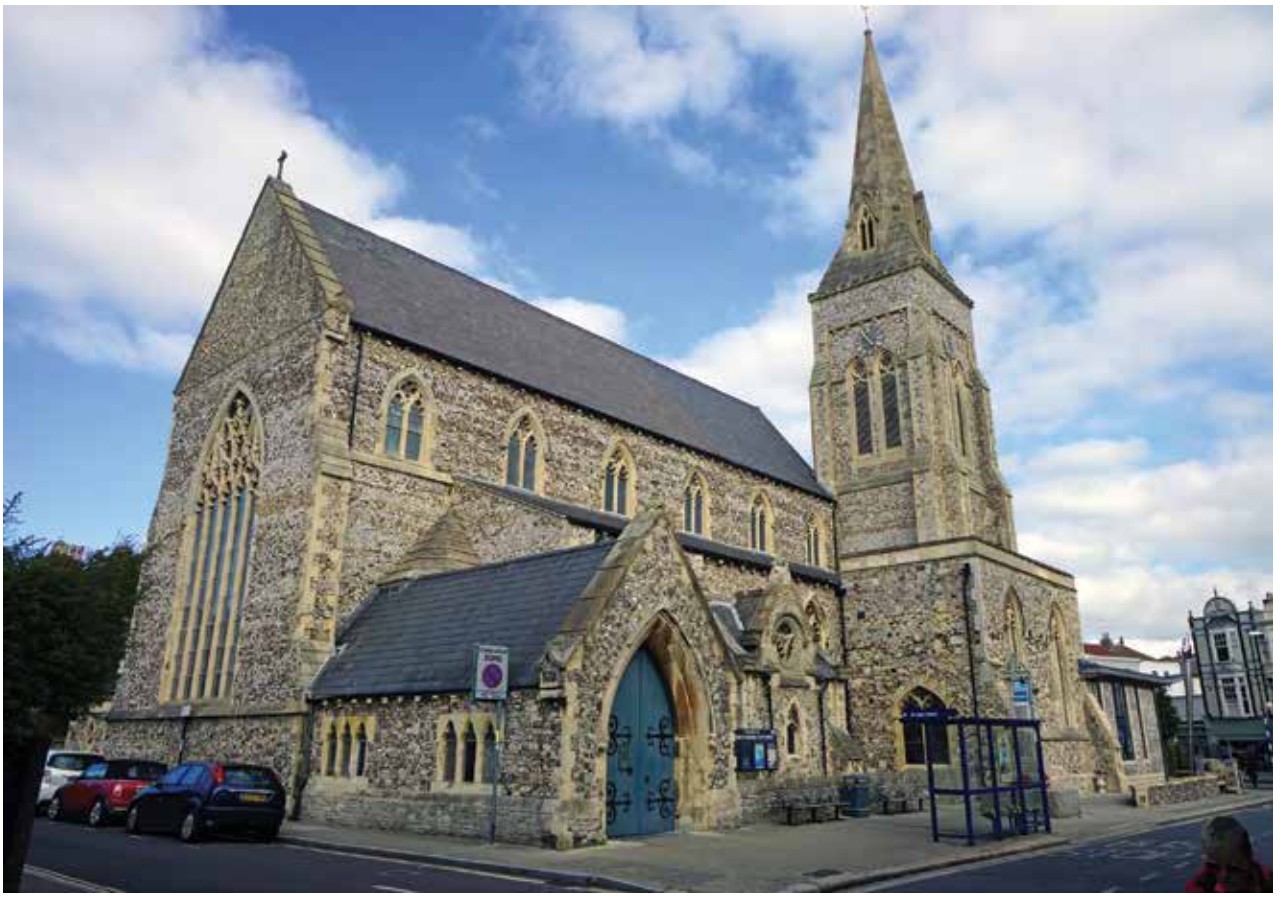
Isambard Brunel School. Designed by A.H. Bone and built in 1896 to serve the growing population of North End.

(opposite) Top: **Craneswater School, Albert Road.** 1910. Designed by A.E. Cogswell in 'Free Flemish' style.

Bottom: **New Road School, Fratton.** The surviving part of a Board School. built after the 1870 Elementary Education Act had introduced compulsory, free, state education for children aged five to twelve. Now Binsteed Community Centre.

Carnegie Library, Fratton. One of 2,800 local libraries worldwide funded by Scottish-American philantropist Andrew Carnegie. Designed by A.E. Cogswell and built in 1905.

social segregation became more marked, the 'respectable classes' were increasingly fearful that the mass of the poor would become steadily more uncontrollable. The moral and religious elevation of working people was seen through the critical eyes of the horrified bourgeoisie as the antidote to the drinking habits, sexual mores and general profanity of the labouring classes. The established church, meanwhile, was alarmed at the prospect of losing congregations. The result was a burst of Anglican church-building in the burgeoning suburbs of the city. Commissioners' churches were still being planted at the beginning of the Victorian era: St Mary, Kingston (1838), Holy Trinity, Portsea (1839), and St James, Milton (1840). In the second half of the century, Anglican church-building relied on 'estate churches' (promoted by landowners and developers as presumed beacons of respectability and order in the hope of making property in their district more attractive) and 'private churches,' initiated by the clergy and their patrons to take advantage of the prospect of new congregations (or in some cases to further a particular brand of churchmanship). St Jude's, Southsea is a good example of an estate church. It was designed and built by T.E. Owen as part of



St Jude's, Southsea. Built in 1851 by architect, developer and politician T.E. Owen to anchor his emerging residential suburb.

his upper-middle-class residential enclave. Examples of 'private' Anglican churches include St. Alban, Copnor (1914), St Mark, North End (1874) and St Peter, Southsea (1883).

Yet Portsmouth had strong traditions of dissent, irreligion and class consciousness that met the efforts of churches and missions with indifference or even hostility. Religious attendance was first enumerated in the 1851 census and showed that just over one-third of Portsmouth's population attended a church of any denomination, compared with the national average of almost two-thirds. This put Portsmouth near the top of the league for irreligion, a little way behind the likes of London's East End and Manchester's Ancoats. The established Anglican church would have taken no comfort from the fact that just over half of those who did attend, went to dissenting or non-Christian places of worship. Working men and women, if they went anywhere, tended to prefer nonconformist worship. By the 1860s there were eleven Baptist churches and chapels in the city, along with eight Methodist chapels and a dozen independent chapels.

The secular landscape was meanwhile transformed by a spate of local government reform. In particular, the Local Government Act of 1888 created a new geography of Counties and County Boroughs and the consequent flush of civic pride and competitiveness among these newly empowered local authorities saw the appearance across Britain of new town halls, police stations, fire stations and civic amenities. Portsmouth became a County Borough in 1889, just as its new Guildhall was nearing completion. Victorian town halls were symbolic of civic pride and identity, and Portsmouth's was built to reflect the city's preeminence in maritime affairs, topped off with a statue of Neptune.

Portsmouth Guildhall. The original building in Italianate classical style designed by William Hill and built 1886-90.

Victorian Town Halls were symbolic of civic pride and identity

Portsmouth Guildhall. Reconstructed (and controversially modified) 1955-59 after severe damage from incendiary bombs in the Second World War.

Another key element in local government reform was the Housing of the Working Classes Act, which empowered the new County Boroughs to demolish the worst slums and replace them with new housing. The Act had passed in 1890 and it was not until 1903 that Portsmouth's Medical Officer of Health recommended that slum clearance should finally begin. The proposal was turned down because of the expense but in 1909 the council decided to go ahead and demolish one of the worst slums: Whites Row and Albion Street, off Queen Street. The 200 demolished properties were replaced with an entirely new street of terraced houses: Curzon Howe Road (named after Rear Admiral Curzon Howe). These were Portsmouth's first council houses. Their design was strongly influenced by the ideals of the Garden Suburb movement associated with Raymond Unwin, Chief Architect to the Ministry of Health and author of the influential text *Town Planning and Modern Architecture*, published in 1909. Each of the 43 houses on Curzon Howe Road had three bedrooms, a living room with a bay window, a kitchen, a heated water supply, a bath, an inside WC, and a garden.

Curzon Howe Road, Portsea. Built on the site of Whites Row, a particularly notorious slum. Acquired by the city in 1914, these became the city's first council houses.

The Railway: Expansion and Realignment

Development spread across Portsea Island throughout the nineteenth century. At the same time, the cityscape was reshaped by the influence of the railways. The military's reluctance to see the Hilsea Lines breached delayed things for a few years but the railways reached Portsmouth in 1847. This linked the city to national markets, facilitating the growth of tourism and realigning the internal structure of the city. Meanwhile, the London and Southampton Railway company had opened a line to Gosport. The Admiralty added a siding to the Royal Clarence Victualling Yard with a special station for Queen Victoria to connect to steamer voyages to and from her residence at Osborne House on the Isle of Wight. By 1849 there was a line into the Dockyard and by 1859 Portsmouth had direct commercial connections from Portsmouth and Southsea Station (at the foot of Commercal Road) to London, to Southampton and the West County, and to Brighton. The need for an interchange among these lines resulted in Cosham getting a station as early as 1848, suddenly opening up the foot of Portsdown Hill for urban development.

The connections to London and Brighton also made the Arundel Canal redundant. It was abandoned in 1855. The canal bed was used to lay railway track to Fratton, and from there it was filled in to create Goldsmith Avenue. In 1876 high-level platforms were added to Portsmouth and Southsea station to take the line up and over Commercial Road and on to a new station at Portsmouth Harbour. Fratton Station was added in 1885, along with a branch line to a station at East Southsea (just north of South Parade Pier). Today the curve of Heidelberg Road follows the track of the Southsea branch line, and the site of an old bridge over the tracks, now just a hump in the road, can be found at Old Bridge Road. By the 1890s, tram companies had developed a city-wide network; and in 1900 the network was taken over and electrified by the newly-empowered municipality. Competition from electric trams proved too much for the Southsea branch line, and it was abandoned after the start of the First World War.

Railway approaches. The approach to Portsmouth and Southsea station follows the bed of the old Portsmouth and Arundel Canal.

The new Guildhall had been located a stone's throw away from Portsmouth and Southsea Station, and between them they attracted other key activities – big shops, banks, the Head Post Office, the head offices of the water and gas utilities, insurance office buildings, a Freemasons' Hall, the Theatre Royal and the Royal Hospital – decisively replacing Old Portsmouth as the commercial and administrative centre of the city. Relieved of its civic functions, Old Portsmouth began to be redeveloped, building by building, Victorian and Edwardian residences replacing many of the aging Georgian structures.

Portsmouth and Southsea Station. The original station was opened in 1847, its presence drawing much of the city's commercial activity away from Old Portsmouth. This High Victorian building replaced the original station in 1866.

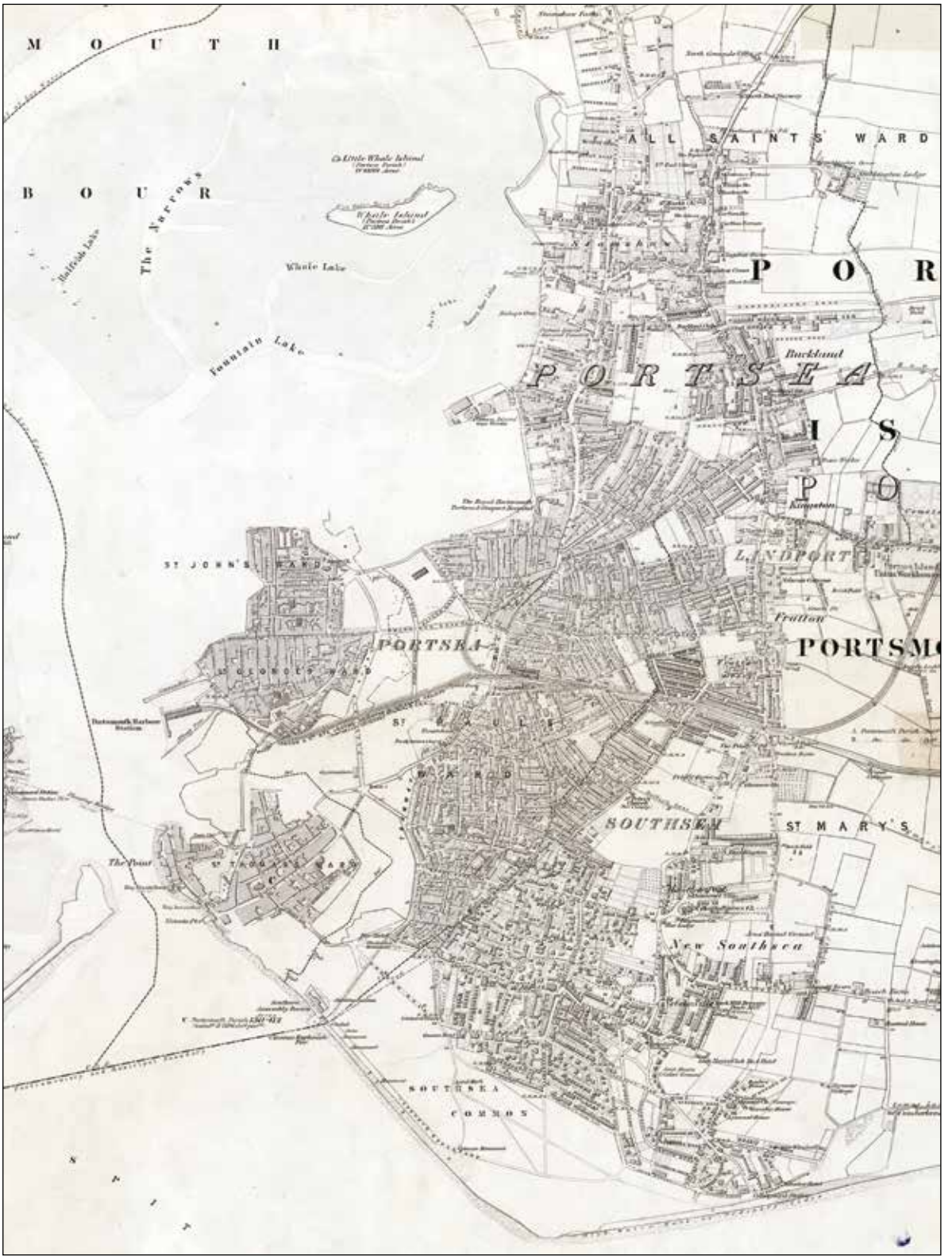
Cosham Station. Opened in 1847 to serve the interchange of north-south and east-west lines, it was key to opening up the surrounding area for urban development.

(right) **Charter House, St Paul's Road.** The former offices of Pearl Assurance, built in 1889 as the area around the Guildhall and main railway station developed into the city's central business district.

(below) **Park Building, King Henry I Street.** Another important element in the development of the city centre, the Park Building (1908) housed a municipal college and public library; now part of the University of Portsmouth.

Bath Square. Now mostly gentrified, and very different from its nineteenth century role as the setting for a fish market and numerous drinking houses.

Tower House. Former home of marine artist W.L. Wyllie (1851-1931), who added the tower after buying the property in 1907.


M O U T H
B O U R
The Narrows
Whale Island
Whale Lake
Fountain Lake
ALL SAINTS' WARD
P O R
P O R T S E A
I S
P O
Buckland
LANDPORT
Fratton
PORTSM
PORTSEA
ST JOHN'S WARD
ST THOMAS' WARD
ST PAUL'S WARD
SOUTHSEA
ST MARY'S
New Southsea
SOUTHSEA COMMON

Together, the railways and trams opened large areas of Portsea Island for new housing: a process that accelerated both the social polarization of the city and the creation of new local shopping centres. Suddenly, land that had been devoted to horticulture or that had been long held by big landowners was not only accessible but also ripe for development. With the expansion of international trade and the development of faster and more efficient transportation systems within Britain, it became easier and cheaper to bring fresh food into Portsmouth from relatively far away. The corollary was that the relative profitability of farmland on the fringe of the city began to diminish, especially after the agricultural depression of the 1870s. For the owners of larger parcels of land, the temptation to sell to developers became hard to resist.

Before development could take place on large estates, the owners were obliged to secure an Act of Parliament to abolish ancient rights of access to the land: a process of 'enclosure' that amounted to a stealthy privatization. It was common for landowners to act as developers of their own land, laying out streets and plots and then offering building leases to builders, most of whom opted to construct houses for rent. A great deal of territory was covered with row after row of rectilinear streets: the classic layout for frontier development because of the ease of surveying and the ability to maximize the density of housing in long runs of terracing. Most house-building was undertaken speculatively, and at first most of the building firms were small, local concerns, responsible for just a few houses per year.

King Street, Somerstown. An early Victorian terrace dating from the 1840s.

(opposite) **Portsmouth in 1856.** Extract from Ordnance Survey Sheet LXXXIII, six-inch series (not to scale). Note the defensive glacis around both Old Portsmouth and Portsea, still undeveloped in 1856. Reproduced with the permission of the National Library of Scotland.

Highland Terrace, Southsea. 'Two up, two down' homes originally built as living quarters for the Royal Marine Artillery in the 1860s.

Gloucester View. This terrace of eleven small brick Georgian-style houses dates from the 1840s.

Bourgeois Portsmouth

Although Portsmouth had a relatively small middle class, it was by no means insignificant, and it represented a growing and profitable market for builders. Semi-detached homes, an innovation with origins in London, constituted a radical new pattern of urban development. Privacy, the touchstone of Victorian middle-class values, was provided by brick walls and dense plantings. Social distinction, not far behind on the list of Victorian bourgeois priorities, was signalled by elaborate embellishment. Builders also catered to the desire for social distinction by providing pairs of semi-detached houses with a single pediment, treating the fronts as a single elevation. In this way a pair of modest houses might give the illusion of a single fashionable one. Builders then added their own embellishments, according to market segment and the fashion of the moment. This reflected a broader struggle to find an aesthetic appropriate to the time. The dislocation and new experiences introduced by the industrial era resulted in new ways of seeing, new ways of representing things, and a good deal of confusion and conflict over the appropriate physical expression of the new era. At first, builders and developers carried over neoclassical styles from the Georgian and Regency eras. But the Victorian middle classes had money to spend and social standing to establish. The outcome was an ever-increasing amount of Italianate decorative stucco, along with elaborate iron balconies, window guards, railings and finials. Bay windows became popular, not only because they enlarged front rooms by a yard or more and let in more light, but also because they broke up terrace frontages and lent an air of distinction. They also served a social function, allowing residents a discreet means of keeping tabs on the doings of neighbours and passers-by.

The overall aesthetic response to the radical changes of the Industrial Revolution was reactionary. In the face of turbulence and change, architects, builders and their clients opted for the reassurance of the traditional. The Gothic Revival style, with its religious, romantic and picturesque connotations, appealed to many. Gothic Revival styles lent themselves especially well to detached and semi-detached houses, so that the dominant outcome in Portsmouth was an eclectic 'Speculator Gothic'. Detached and semi-detached homes were given pointed windows, turrets, towers, battlements, steep roofs and tall chimney stacks. As further novelty, developers offered brickwork in a variety of colours and patterns. It was all well suited to the ostentation that prevailed at the high point of empire. But by the 1870s Domestic Revival styles had become influential. Their appeal lay in the deployment of small-town imagery, based mainly on English Tudor and Jacobean houses. The Domestic Revival homes of the 1870s and 1880s

Speculator Gothic: Shaftesbury Road, Southsea. Part of Southsea's development after T.E. Owen's early suburb had made the district fashionable.

(top) **St David's Road.** Speculatively built in the 1870s for the city's professional classes. The semi-detached homes in Gothic Revival style were a marked contrast to the surrounding uniformly terraced roads.

(bottom) **St Andrew's Road.** This section of St Andrew's Road was developed with a unique arch-fronted variation of Gothic Revival style.

Queen's Grove, Southsea. Detached house c. 1890, in hybridized Arts and Crafts style.

Branksmere Lodge. This Southsea villa was built in 1865 for Henry Brickwood, owner of Brickwood's brewery. Designed by A.E. Cogswell, who also designed many of Brickwood's pubs (see page 74).

Lennox Mansions. A prominent 1896 building overlooking the Common. Also designed by A.E. Cogswell.

featured steeply pitched roofs, fancy gables, bay and oriel windows, massive chimney stacks, hung-tiled dormers and partial rough-cast finishes.

In casting Portsmouth's new residential districts, most builders and developers were supported by pattern books, catalogues, kits of plans and bills of quantities advertised and featured in weekly periodicals such as *The Builder, Building News, The Builder's Practical Director* and the *Illustrated Carpenter and Builder*. Their pattern-book plans were typically simplified, scaled-down versions of what society architects were preparing for custom-built houses. Trained architects were involved only with high-end residences, public and commercial buildings. One of Portsmouth's most prolific architects was A.E. Cogswell. As an apprentice he had been involved in designing Kingston Prison and St James Hospital. He went on to design a wide variety of buildings, including about 60 pubs and hotels. Among his legacies in the current cityscape are Branksmere Lodge, a mansion originally built for the Brickwood family; Lennox Mansions, on Clarence Parade; St Paul's Road Drill Hall; St Nicholas Church, Copnor; and schools on Francis Avenue and Milton Road. Among his surviving pubs are the Coach and Horses, the Eastfield, the Florist, the George and Dragon, the Graham Arms, the Lord Chichester, the Mars, the Mediterranean, the Mermaid, the Pelham Arms, the Pompey, the Rutland Arms, the Shepherds Crook, the Ship Anson, and the Talbot (though not all still function as pubs). Other architects who left a significant mark on Portsmouth's cityscape include G.E. Smith (surviving buildings include shops and flats on corner of Elm Grove; Reginald Road School (now Cumberland infant school), and the Cemetery Lodge, Milton) and A.H. Bone (Stamshaw infant school, Penhale Road school, Isambard Kingdom Brunel Junior School; the Fawcett Inn, the Festing, the Nell Gwynne, and the Mother Shipton). But the most celebrated of Portsmouth architects was T.E. Owen, who single-handedly secured Southsea's reputation as a desirable residential suburb.

Stanley Street, Southsea. A pair of flambouyant houses built 1840-50, infilling the southern extension of T.E. Owen's Southsea developments.

Owen's Southsea, Nelsonville and Havelock Park

Artisan residential development had begun to spill over from Croxton Town and Somers Town into the western fringe of what is now Southsea by the 1840s. A little further east, Owen set about providing housing for the upper end of the market. Owen was not only a trained architect but also a developer, property speculator and politician (he served as Mayor of Portsmouth in 1847 and 1862). As a major landowner he was able to influence the overall layout of the district and to take advantage of economies of scale to lay on a piped water supply to his properties from a well in Elm Grove. Altogether, he is credited with 106 villas and 54 terraced houses as well as his own estate church, St Jude's.[16] Collectively, they formed one of the Victorian era's first provincial villa suburbs: fashionable districts of detached Italianate villas set among generous landscaping. The inspiration seems to have been John Nash's Park Villages in London's Regents Park.

Owen's designs have been described variously as interpretations of Regency, Italianate, Gothic Revival and Picturesque styles. Nikolaus Pevsner, author of the leading reference series on British architectural history, dismissed Owen's architecture as 'strange and awkward', somehow missing the point that the principal theme of Victorian architecture was eclecticism and the struggle to find an aesthetic appropriate to the time. Owen began what was to become his villa suburb in the mid-1830s with stuccoed terraces and small Italianate cottages in the area to the west of Palmerston Road and around Grove Road. Within a decade he had completed his imposing centerpiece, Portland Terrace, along with more than a dozen big villas in the Grove

[16] Riley, R. C., 'The Houses and Inhabitants of Thomas Ellis Owen's Southsea', *Portsmouth Papers*, 32, 1980.

South Parade. A seafront terrace that originally consisted of five houses, by T.E. Owen, 1860-62.

Southsea Terrace, Southsea. A speculatively built terrace, surely influenced by T.E. Owen's nearby developments on Kent Road.

Dovercourt, Kent Road. Owen's own home (1848), which he designed himself, located in the middle of the district that was full of his architecture. It now houses the Lower School of Portsmouth High School for Girls.

(clockwise from top left) **Kent Road, Southsea.** One of Owen's first terraces. (1837-40).

Sussex Road, Southsea. 'Swiss Cottage', one of Owen's first detached homes, (1837); now part of Portsmouth High School for Girls.

Kent Road. Detached villa by Owen, 1844.

Kent Road. Pair of semi detached villas, by Owen, 1844.

Sussex Terrace, Southsea. A terrace of six houses, 1854-55, by T.E. Owen.

Road and Kent Road area, and he continued building for the upper-middle classes in Southsea into the 1860s.

By 1857, and in no small measure a result of Owen's skill as a politician and developer, Southsea had gained its own Improvement Commissioners, responsible for paving, cleaning and lighting the streets. By the 1860s Southsea had grown along Clarendon Road as far as Granada Road and expansion (by other builders and developers) had reached the seafront, with new villas extending along the northern edge of Southsea Common. To the east of Owen's Southsea, developers laid out a 'New Town' consisting of Nelsonville and Havelock Park, both laid out with a mixture of formal terraces, detached villas, and semi-detached houses. Nelsonville includes Exmouth Road, St. Vincent Road, Collingwood Road, Duncan Road and Napier Road, all named after illustrious naval officers.

Exmouth Road, Southsea. Part of Nelsonville, begun about 1860. The northern end of the street (where the King's Theatre now stands) was originally gated.

(opposite, both photos) **Campbell Road, Southsea.** Part of Havelock Park, laid out after 1857 with roads named after officers who took part in the suppression of the Indian Mutiny that year.

Havelock Park, where the streets were named after military commanders who took part in the suppression of the Indian Mutiny in 1857, was a precursor of the privatized communities of the twenty-first century, with gates and lodges guarding the entrances. Palmerston Road, conveniently close to the seafront's Ladies' Mile, esplanades and ornamental gardens, acquired fashionable shops and cafes that provided meeting places and promenades for Southsea's gentility. Southsea soon became the preferred setting for such bourgeoisie as the city possessed: fund-holders and annuitants, naval and military officers, both active and retired, clergy, local businessmen, property owners, and keepers of select private schools. By the turn of the century Southsea had spread eastwards over remaining farmlands to reach the borders of Milton and Eastney. This final growth phase was mainly to accommodate the city's petit bourgeoisie, which had expanded with the local demographic boom associated with the surge of British imperial expansion in the 1880s and the escalation of German military ambition in the 1890s.

Clock Tower, Great Southsea Street. Former antiques shop, now hair salon; built in 1903.

Southsea quickly became the preferred setting for such bourgeoisie as the city possessed

Marmion Road. A specialist shopping street with some surviving original shopfronts.

Resort and Conference Town

By this time Southsea had also become well-known as a seaside resort. For Victorians living in rapidly-industrializing towns and cities, the sea, sunny weather and healthy sea air of the South Coast were powerfully attractive. Sea bathing had begun to be acknowledged as healthy and enjoyable in the late eighteenth century, and bathing machines were already a feature of Southsea beach. The first person to see the business opportunities had been Henry Hollingsworth. In the 1830s he had built the King's Rooms, a leisure complex for the town's affluent classes. Located near the site of what is now Clarence Pier, the main attraction was an assembly room for upscale social functions but there were also baths, a pump room and a reading room. For others, the sea provided free recreation, though mixed bathing was not legal until 1910.

The coming of the railway allowed Southsea to take off as a destination for visitors, and resort infrastructure was gradually put in place. Clarence Esplanade, linking the King's Rooms site and Southsea Castle, was built in the late 1840s using convict labour. The amenity of the seashore was enhanced by the green space of the Common: drained and levelled but kept clear of speculative developments because of military control. The 1840s also saw the construction of Victoria Pier, near the Square Tower. Used primarily as a landing place for steamer passengers, it became popular as a promenade with a good view of comings and goings in the harbour. Clarence Pier was

Freestone Road, Southsea. Pairs of semi-detached houses with wrought iron verandas typical of the 1860s.

opened in 1861: a landing stage for excursion steamers and the Isle of Wight ferry and also a setting for edifying outdoor concerts. A tram service connected the pier to the Portsmouth and Southsea railway station. Clarence Esplanade was extended in the 1860s using spoil from excavations at the Dockyard, and the seafront was then liberally supplied with seats and shelters. South Parade Pier was built in 1879. It burned down in 1904 but the new pier, opened in 1908, was palatial, with a glazed canopy that projected out over the esplanade. Lodging houses and hotels proliferated around the landward fringe of the Common and further east, along the esplanade.

By the time the branch railway line from Fratton to Southsea opened in 1885 the town council had taken over the Common, created the Ladies' Mile and was busy draining the Minnow Pond to form the Canoe Lake. Southsea had become a fully-fledged resort town, with all the usual amenities. In addition to promenading and bathing, visitors could enjoy cricket, tennis, croquet, bowling, cycling, yachting and skating, and brass band concerts in the parks and

Ladies' Mile, Southsea Common. After the Council leased the Common in 1884, Ladies' Mile was laid out to foster promenading and accommodate parades.

Canoe Lake. The last remnant of the Great Morass, created in 1886.

promenades. Nearby, just beyond Southsea itself, was a music hall (the South of England Music Hall, on St Mary's Street – now Highbury Street) and several theatres (the Hippodrome, Commercial Road; Prince's Theatre, Lake Road; the Theatre Royal, Commercial Road; and Kings Theatre, Albert Road). By 1910, when the provisions of the 1909 Cinematograph Act came into force, there were around 20 premises licensed to show silent films, half of them purpose-built. There were tea gardens at the foot of Portsdown Hill, and from 1898 onwards there was professional football at Fratton Park. In addition to seasonal holidaymakers, numerous national bodies held their conferences in Southsea.

But the development of Southsea as a resort was restricted by the fact that it was hemmed in by built-up areas. Other Victorian seaside resorts had more room to grow, and as a result acquired a greater range of attractions and, with them, a broader clientele. Compared with the competition, Southsea's range of attractions '... was rather limited and led inevitably to its appealing primarily to the more select category of visitor who demanded relatively little in the way of popular entertainment'.[17]

King's Theatre, Southsea. Designed by specialist theatre architect Frank Matcham and built in 1903.

[17] Yates, N., 'Selling Southsea, Promoting Portsmouth: Resort Development 1920-2000', *Portsmouth Papers*, 72, 2002, p. 1.

Theatre Royal, Guildhall Walk. Built as Landport Hall music hall in 1854, converted to a theatre in 1856, substantially rebuilt in 1884 and reconstructed by Frank Matcham in 1900.

Queen's Hotel, Southsea. The original hotel, dating from 1861, was damaged by fire and replaced by this neoclassical revival building in 1903.

Nevertheless, Southsea had something the others did not. National pride in the Queen's Navy drew many visitors. Apart from sight-seeing cruises in the harbour there were plenty of opportunities to witness the spectacle and ceremony laid on by the Royal Navy, particularly when there was visiting royalty or heads of state. 'In 1907 for example, a not untypical year, there were visits from a Russian squadron in March, the colonial premiers in May, the King and Queen of Denmark in June, two Japanese cruisers in July, a Swedish squadron and Edward VII for a review in August and the Kaiser with a German squadron in November'.[18] Garrison regiments regularly provided parades but above all it was fleet reviews at Spithead that drew the crowds. From the beginning of Queen Victoria's reign until the First World War there were eighteen Fleet Reviews. For the Diamond Jubilee in 1897 there were 165 Royal Navy warships, stationed in four lines each five miles long. These were flanked by a line of foreign naval vessels and a line of merchant ships.

[18] Fox, N., 'Leisure and Culture'. In Stapleton, B. and J. Thomas (eds.), *The Portsmouth Region*, London: Alan Sutton, 1989, p. 183.

Fleet Review, 1897. 165 battleships, cruisers, gunboats and torpedo craft were ranged in five lines, each five miles long, to mark the Queen's Diamond Jubilee.

South Parade Pier. The original pier (1908), with its concert hall, bandstand, promenade and galleries, was an important symbolic investment by the Council as it sought to promote the tourism sector of the city's economy. It was rebuilt after severe fire damage in 1975.

Seafront shelter. One of several surviving shelters erected along the seafront by the Council in 1903.

Victoria Pier, Old Portsmouth. In 1842 the pier replaced a wooden jetty known as the Powder Bridge that gave access to the ammunition store in the Square Tower. Steamers entering and leaving Portsmouth Harbour picked up and dropped off passengers at the pier and two waiting rooms were provided nearby.

The Spread of Terracing

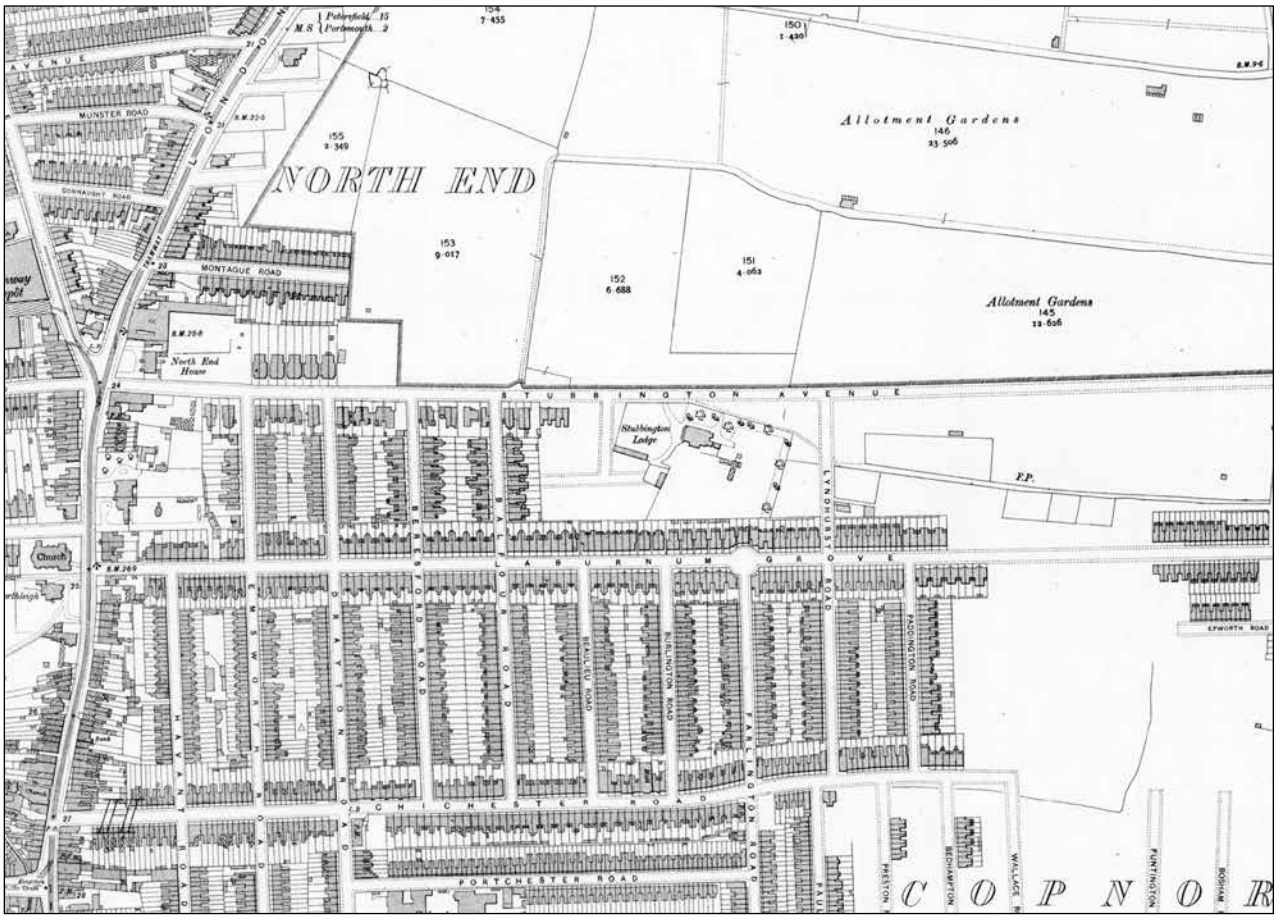
The rest of Portsea Island grew in very different fashion. Expansion from Portsea and Landport followed the path of ribbon development along Commercial Road/Mile End Road and Kingston Road/London Road, gradually connecting Rudmore, Buckland, Stamshaw, Kingston, Stubbington and Fratton into a continuous band of houses and shops. Development as far north as Kingston Crescent and as far east as Kingston Road was rather disjointed, framed by property boundaries based on ancient field strips.

Beyond this, larger-scale development was possible. As the city grew, the large parcels of land available in the open fields of the northern and eastern parts of Portsea Island attracted out-of-town speculative developers. Their market was the industrial working class, and their product was repetitive grids of dense two-storey terraced housing. Houses were small and basic, mostly fronting directly on to the narrow streets and with plain facades. Some of the oldest surviving terraced housing in the city was built in the 1860s and sits to the west of Stamshaw Road. By the 1880s most of Stamshaw, Stubbington and North End had been almost completely built up, much of the development having been by the London-based United Land Company. Gruneisen Road, Stamshaw, is named after the company's General Secretary.

Some of the oldest surviving terraced housing in the city sits to the west of Stamshaw Road

The villages of Milton, Eastney, Copnor and Hilsea remained relatively undisturbed until the 1890s but by 1910 they had been surrounded by grids of terraced housing, some running east-west and some north-south. The village cores were promptly redeveloped as local retail and service centres, featuring purpose-built parades of shops with accommodation above: a distinctive feature of Edwardian urban development. The shops were mostly independently owned: butchers, bakers, greengrocers, laundries, newsagents, post offices and pubs; and perhaps a small library or tea room. Much of this commercial

Lower Derby Road, Stubbington. One of Portsmouth's oldest surviving terraced streets, dating from the 1860s.



North End in 1907. Extract from Ordnance Survey Sheet LXXXIII.4, 25" series (not to scale). Compare with the map of the same area in 1937 (page 126). Reproduced with the permission of the National Library of Scotland.

Laburnum Grove, North End. So many naval officers lived in Laburnum Grove that it was called Brass Button Alley (it was also called Lavatory Lane because the white tiles on the outside of houses looked like those on the walls inside public lavatories).

Burleigh Road, Fratton. Part of a Late Victorian terrace (1897) featuring the white tiled bricks deployed by speculative developers to lend a certain distinction to their product; the colours came later.

fabric survives, although greatly modified. Most of the surrounding housing also survives. A little more generous in size and quality than the terraces if the 1860s and 1870s, most featured single painted bay windows and red brick or rendered frontages with small front forecourts bounded by low brick walls. Some streets have decorative architectural features that gave them a degree of local distinctiveness at the time of their construction; but most streets have been heavily altered over the past century as maintenance and efforts to individualize properties has resulted in re-roofing, the addition of porches, the replacement of front doors and windows, and the addition of dormers.

Tangier Road, Copnor. An Edwardian terrace featuring the wrought-iron porches that had proved popular in Victorian Southsea.

Edwardian terracing, Devonshire Avenue. The southeastern quadrant of Portsea Island began to be covered with terracing before the outbreak of the First World War.


1939-1945
THE GLORY OF THEIR TIMES

War ... War 1914-1945 4

Inevitably, Portsmouth found itself at the sharp end of both World Wars. Naval power was central to both conflicts and Portsmouth provided the country's principal naval base as well as being a key mustering point. The target-rich city was on the front line throughout the Second World War, under repeated attack – or the threat of it – by Luftwaffe bombers and the Wehrmacht's 'doodlebug' V1 cruise missiles. The exigencies of both wars reshaped the city and helped to refine and reinforce a collective self-image and sense of place that has carried over into the present day. The twenty years of peace between the wars also left their mark on the city. The rigidities of Edwardian society were dissolved by the beginnings of a consumer society, while the political aftermath of the First World War and the Depression of 1929–32 led to much more government involvement in housing and social policy. By the start of the Second World War, the government had taken on significant responsibilities in shaping industry, social welfare, town planning and transport as well as the provision of housing.

New Urban Landscapes

The hedonism and consumerism of the Roaring Twenties was especially marked in southeastern England, where it carried over into the 1930s in spite of the Depression. While rural and industrial regions in the rest of the country experienced the worst of the Depression, London and the south-east grew dramatically in population and areal extent and became a seedbed for social change: increasing levels of owner-occupation and social mobility and the development of consumerism. The most visible legacy of the period was urban sprawl and ribbon development. Accelerated processes of expansion, absorption and infilling created a mosaic of new suburban estates that engulfed the remaining villages on and around Portsea Island. The last of the area's farms were sold and parcelled up for building, while the villages morphed into suburban shopping centres.

Twenty years of peace also left their mark on the city

The new suburbs were sharply differentiated by class and income. There were local authority estates, blue-collar private suburbs, leafy middle-class garden suburbs, and a scattering of bespoke villas. The new suburbs were supported by local shopping parades, while consumerism and a retailing revolution brought national chain stores to Portsmouth's shopping streets. Changing patterns of recreation brought new cinemas, dance halls and cafes, along with new kinds of pubs: road houses and refits with 'lounge' bars. Golf courses and tennis clubs appeared, while new roads and bypasses attracted factories and petrol stations.

(opposite) **Royal Naval War Memorial, Southsea** (detail).

All this was the result of a unique combination of factors. Demand for housing was driven by a backlog in construction as a result of the First World War, an increase in the number of households moving to the area, the growth of a salaried middle class with an increasingly consumerist outlook, and significantly rising average real incomes. The number of clerical workers increased almost threefold over the course of the interwar period, while the number of people in the professions roughly doubled, as did the number of foremen, inspectors and supervisors. Real incomes rose by more than 25 percent over the same period as the international terms of trade shifted in Britain's favour during the Depression, thereby reducing the price of a broad range of foods, raw materials and consumer goods.

Better-paid households could suddenly afford to move to better houses in new neighbourhoods, often changing from rental to owner-occupation in the process. These shifts in demand were matched by an equally unique set of circumstances on the supply side. Land became available at reasonable prices as a result of falling agricultural prices and the government intervened to address the backlog of housing by providing cash to developers towards the construction of family homes. The intention was to provide for working-class households, but in practice it subsidized the sale of houses to middle-class buyers. Meanwhile, because of rent controls that had been introduced during the First World War, building for owner-occupation was a much more attractive proposition for speculative developers than building for rent. Further government intervention came in the 1920s in the form of tax relief on mortgage interest payments.

Better-paid households could suddenly afford to move to better houses in new neighbourhoods

Capital and finance were freely available to support all this, especially after the Depression had made industrial shares a decidedly unattractive investment. Building societies received huge flows of funds, enabling them to offer mortgages to households of increasingly modest means. The typical deposit required for a mortgage shrank from 25 percent of the sale price to just 5 percent and house prices were lower than at any time before (or since) because the Depression had forced down the cost of both materials and unskilled and semi-skilled labour.

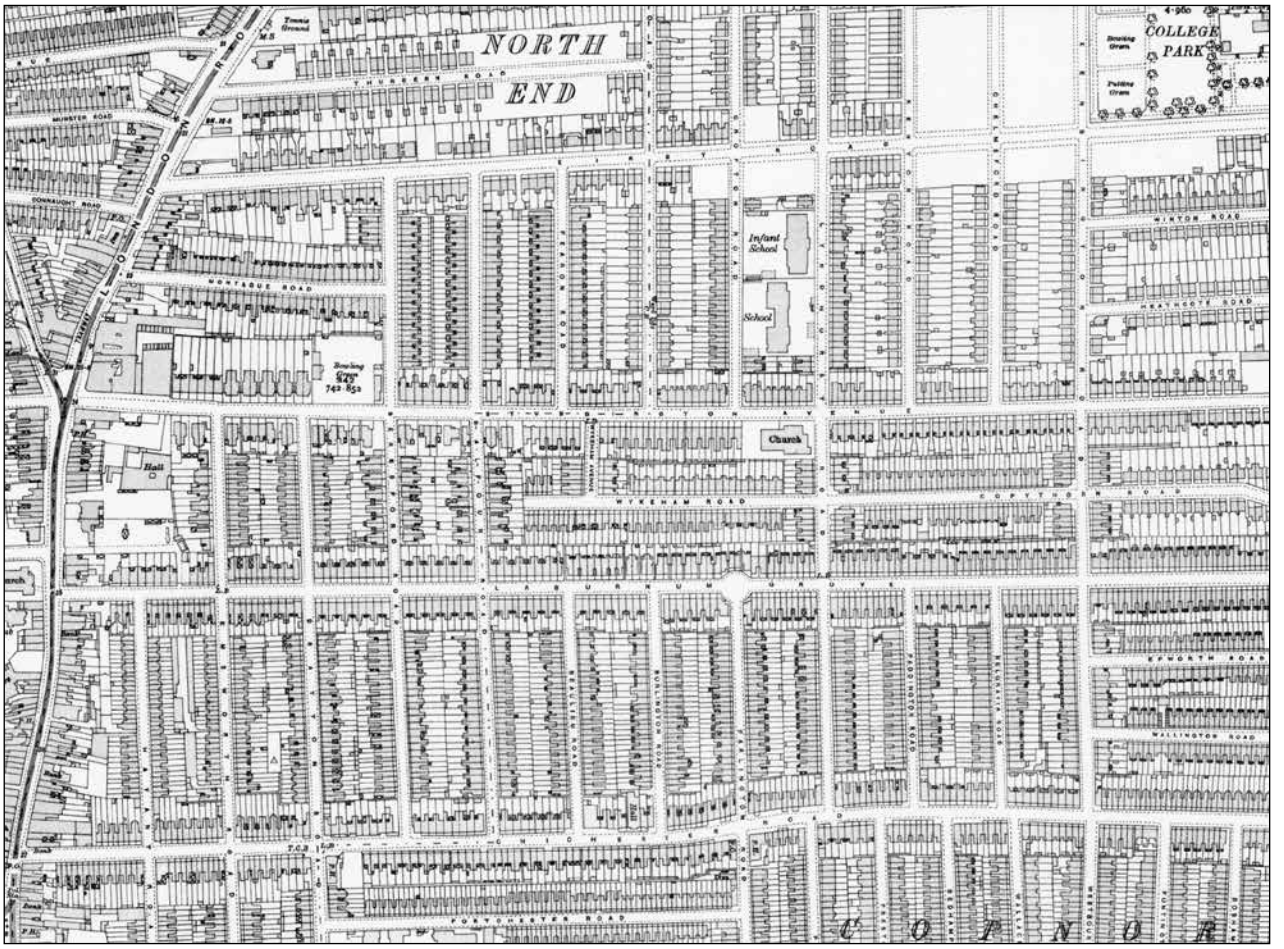
Working-class housing spread into Eastney, Milton, Copnor, Baffins, and Hilsea during the inter-war period. Most of the development consisted of terraces of red brick houses, each set behind a small front forecourt, with a single lower bay window, and a pitched tiled roof. They were built at only slightly lower densities than the pre-war districts of Fratton, Kingston, and Landport. By 1939 tightly-packed houses covered most of Portsea Island.

The exception was the northeastern quadrant, where fields belonging to Highgrove Farm and Great Salterns Farm were replaced by a Municipal Aerodrome and Portsmouth City Golf Links respectively.

Suburban growth also spread beyond Portsea Island to Portchester, Cosham, Drayton, and Farlington – typically at much lower densities but for the most part still arranged in a grid pattern. The exceptions and modifications to gridded layouts were mostly tracts of social housing, and they were also built to much more generous standards of quality and density than the city's pre-war terraces. In recognition of this growth the borough boundary was extended by parliamentary reform in 1920 to include Cosham and Wymering; and in 1932 to incorporate parts of Portchester, Drayton, and Farlington.

The increased emphasis on leisure and consumption during the interwar period also boosted Southsea's resort economy and allowed the city to revamp its external image. Southsea, its amenities and sunny climate were increasingly emphasized in guidebooks while the rest of the city was downplayed. Nevertheless, the Dockyard remained the chief source of employment in the city, and the enduring foundation of its collective identity.

Warren Avenue, Milton. Typical of the terraced streets that spread into the southeastern quadrant of Portsea Island in the interwar period.



North End 1937. Speculative development had almost completely filled in the district with high-density terracing. Extract from Ordnance Survey Sheet LXXXIII.4 25" series (not to scale). Compare with the same area in 1907 (see page 119). Reproduced with the permission of the National Library of Scotland.

Copnor Road, Copnor. Typical inter-war ribbon development along one of the main roads into the city.

The Impact of War

In July of 1914 and with war looming, the Royal Navy held its biggest-ever Fleet Review at Spithead. It featured more than 200 warships, including 24 Dreadnaught-class 'castles of steel' and 84 cruisers and heavy cruisers. A month later Britain was at war with Germany and they – together with their complement of 100,000 seamen – were deployed at sea. The Dockyard was mobilized to a war footing and the city's defences were once again reinforced. The Square Tower was manned and gun emplacements installed along de Gomme's bastions and ramparts on the Long Curtain. The chain boom across the harbour entrance from the Round Tower was reactivated; Eastney Battery and Lumps Fort were equipped with 6-inch guns; the sea forts were armed with 4.7- and 6-inch guns, with No Man's Land Fort and Horse Sand Fort also becoming Navy signalling stations. A howitzer brigade was installed at Fort Cumberland, and the Hilsea lines were staffed with an infantry company armed with Maxim 0.303-inch machine guns.

Eastney Battery. Victorian-era batteries on the seafront were reinforced and equipped with new 6-inch artillery at the start of the First World War.

The Dockyard, meanwhile, geared up to service and refit the fleet. The building of Dreadnaughts continued, with the completion of the *Iron Duke* (1914), the *Queen Elizabeth* (1916), and the *Royal Sovereign* (1917); and the yard also produced a few submarines. But the bulk of the work proved to be in refitting existing warships with anti-torpedo bulges and improved armour plating, and in repairing and maintaining the fleet.

Over the course of the war the workforce grew from around 15,000 to 23,000 as more than 1,100 ships were refitted. Both the Army and Royal Navy gave up parade grounds to accommodate new buildings and heavy equipment and every available space in the Dockyard itself was utilized. Barracks were filled to overflowing and camps sprang up in Hilsea and on the slopes of Portsdown Hill. Throughout the war between 25,000 and 50,000 sailors and troops were stationed in Portsmouth at any one time. Area hospitals were filled with wounded servicemen: Fawcett Road Girls School was converted into a military hospital to ease overcrowding at the Alexandra Military Hospital on Portsdown Hill, the Royal Navy Hospital at Haslar, and the infirmary at Milton (now St Mary's). Patients with Post-Traumatic Stress Disorder (PTSD, known as 'shell-shock' at the time) were confined out of sight within the extensive grounds of the Borough Lunatic Asylum in Milton (St. James's Hospital).

As elsewhere in the country, the civilian population was depleted through volunteering and conscription. Many joined the Royal Navy, but Kitchener's enlistment campaign drew many Portmuthians to the Army. 'During 1914-15

War Memorial (detail). One of two stone figures of machine gunners manning the Guildhall Square entrance to the Guildhall Square cenotaph.

the town raised three voluntary battalions, each 1,100 strong. The soldiers departed for active service amidst scenes of great euphoria, marching confidently through the streets to the main railway station. Not one battalion returned'.[16] The men who survived were transferred to the depleted ranks of other regiments. In Portsmouth, the vulnerability of absent servicemen generated a background of dread that was masked with a stoic defiance that was to remain part of the city's persona well after hostilities had ceased. Inevitably, there were disasters. One of the first with a disproportionate impact on Portsmouth was the loss in November 1914 of Portsmouth-based HMS *Good Hope* at the battle of Coronel off the Chilean coast. All 900 men were lost. In the early summer of 1916 more than 6,000 men were lost at the Battle of Jutland, and again many of them were from Portsmouth. Later that summer on the Somme, General Haig deployed the 11,000 men of the 1st Portsmouth Battalion ('Pompey's Own') in a diversionary operation that cost 600 casualties on the first day alone. Zeppelins represented a direct threat to the city's civilian population but the only record of an attack was that of *Zeppelin L31* in September 1916. One of its bombs narrowly missed HMS *Victory* and another fell near HMS *Renown* in dry dock but the others splashed harmlessly into the harbour.

Rent control and security of tenure were introduced in response to excessive and opportunistic increases in rents

Nevertheless, the war did bring significant changes to civilian life. One immediate change involved restrictive licensing orders, introduced under the Defence of the Realm Act (DORA) to eliminate 'drink-related slacking' among Dockyard workers. Other changes were to have more profound and long-lasting effects. Rent control and security of tenure were introduced in 1915 in response to excessive and opportunistic increases in rents caused by a housing shortage as labour and resources were diverted to the war effort. The restrictions were meant to be temporary, but the chronic issue of affordable housing and the fundamental inequality of bargaining power between landlords and tenants meant that rent controls have persisted in varying degrees until the present: a key element in regulating the nature of urban development.

Another long-term change prompted by the war was that many of the more affluent families dispensed with the services of their domestic servants. The war also hit Portsmouth's corset and stay-making industry hard: reduced demand and the loss of overseas markets led to layoffs and short-time working. Both changes affected women in particular. But the war also brought new job opportunities for women, particularly after conscription was introduced in 1916. Priddy's Hard took on 1,700 women to fill cartridges and shells and make mines and depth charges, while the Dockyard opened up clerical jobs

to women. The Women's Royal Naval Service (WRNS, or 'Wrens'), established towards the end of the war, was a notable precedent for the military. By then, women had been able to find work for the first time in a variety of new settings. The first woman tram conductor in Portsmouth started work in July 1915, and women were hired to work in the gasworks, as grocery van drivers, as postal delivery workers, and as clerks in the formerly male-only banking sector.

The most visible impact of the war on Portsmouth's cityscape was the appearance of allotment gardens. Germany's blockades on food supplies eventually prompted the government to issue Cultivation of Lands Orders through the Defence of the Realm Act, making unused land available for smallholdings, market gardens and allotments. The subsequent 'allotmentitis' that spread through Britain introduced a new and distinctly working-class cultural landscape to the city. Some improbable sites were opened up on railway land, on fields bordering the shoreline and around the Eastney pumping station and on the site of Lumps Fort. Allotmentitis waned significantly between the wars and allotments in North End and along Velder Avenue were lost to an Admiralty signalling school and Milton Cemetery respectively. The outbreak of the Second World War brought a Dig for Victory campaign that once again exhausted sources of land for new allotments. Large allotment gardens have survived south of Locksway Road, in the northwestern corner of Great Salterns either side of Moneyfields Avenue, and in Tipner along the north side of Horsea Lane, along with residual gardens to the north of Highbury estate and adjacent to the M275 near Port Solent.

Allotment gardens, Locksway Road. A distinctive working-class landscape element that complements the city's dense terracing.

Peace

The cessation of hostilities in 1918 naturally prompted prolonged celebrations. But the Admiralty was once again quick to downsize. Many of the new ships scheduled for the Royal Navy were cancelled and those too far along were simply left on their slipway. The cruiser *Effingham*, for example, had been laid down in the Dockyard in 1917 but with the coming of peace all work on her was stopped until 1921. In 1919 the Government approved a 'Ten-year Rule' which instructed the services to base their future estimates on the assumption that there would not be a major war for ten years. It was to have dire consequences when war eventually came again. Meanwhile, Portsmouth Dockyard endured a post-war slump. By the mid-1920s, the Dockyard workforce had been reduced from 23,000 to 8,000.

Nevertheless, military and marine themes loomed stronger than ever in both the cityscape and the self-image of the city. The country's largest provincial war memorial was built to commemorate the estimated 6,000 men and women of Portsmouth who had been killed in the war. Dedicated in 1921 and paid for by public subscription, it was located next to the Guildhall at the entrance to Victoria Park. In 1924 the Portsmouth Naval War Memorial was dedicated to the memory of the 9,279 Portsmouth-based Royal Navy personnel who died at sea. Located on the seafront, its distinctive form – a massive Portland Stone obelisk, identical to the memorials at Chatham and Plymouth – serves as a leading mark for shipping in Spithead.

The Dockyard endured a post-war slump

A less sombre reminder of the city's identity was the institution of Navy Week in 1927. The Admiralty granted a week's holiday with full pay to all Dockyard employees to coincide with Navy Week in August during which civilians were invited to 'See the ships and meet the men'. The city embraced the annual event and by the mid-1930s attendance ran into tens of thousands each day. Another important reminder was the opening of the restored HMS *Victory* to the public in 1928. She had been towed from her anchorage in Portsmouth Harbour to a permanent berth in No. 2 Dry Dock in 1922 and after 1928 the *Victory* became emblematic of the city and a perpetual reminder of heroism and victory.

Elsewhere in the Dockyard, the Admiralty took advantage of the relaxed peacetime pace to tidy and reorganize. The old gun wharf was converted to a shore base, HMS *Vernon*, charged with training for torpedo warfare and signalling. *Vernon* also had an Experimental Department, where a Royal Navy team – one of several in Britain as well as similar military research teams in Germany, the United States and the USSR – was charged with finding a way to detect objects using radio waves (what would become radar). By 1938 the *Vernon* team had fitted HMS *Sheffield* and HMS *Rodney* with the first experimental seaborne radar sets, successfully detecting aircraft flying at 3,000 ft.

War memorial. Paid for by public subscription, the cenotaph designed by Charles Sargeant Jagger was dedicated in 1921, commemorating the men and women of Portsmouth who had been killed in the First World War.

at a range of thirty miles. Most of the work in the Dockyard itself involved routine repairs, the refit of older battleships, the maintenance of newly-introduced aircraft carriers, and the conversion of light cruisers to anti-aircraft ships. It was not until the belated rearmament programme of the mid-1930s that any shipbuilding took place, in the form of the light cruisers, *Amphion, Aurora*, and *Neptune*.

Royal Naval War Memorial. A prominent seamark on the edge of Southsea Common, the memorial commemorates Portsmouth-based personnel who died at sea during the First World War. It was extended in 1953 to commemorate the 14,900 Portsmouth-based personnel killed in the Second World War with no known burial place.

Homes for Heroes

The day after the Armistice in 1918, Prime Minister Lloyd George announced what came to be known as the Khaki Election, promising 'habitations fit for the heroes who have won the war'. A special study of housing needs for working people had been commissioned in 1917 from the Liberal MP Tudor Walters, and his committee's report was published just as the war ended. It promoted the ideal of garden suburbs, thanks largely to the committee's most influential member, Raymond Unwin, who had been the architect and surveyor for the innovative Hampstead Garden Suburb along principles derived from Ebenezer Howard's famous book *To-morrow: A Peaceful Path to Real Reform*, published in 1898 and reissued in 1902 as *Garden Cities of To-morrow*. Howard's concept was for model communities that would cater not only to the middle classes but to the full spectrum of society, with jobs and civic amenities as well as homes: 'restorative utopias' amid the turmoil of industrialization.

The Tudor Walters report's main recommendation was for public utility societies and local authorities to build 500,000 new homes for working people over five years. It suggested that they build as much as possible on cheap, undeveloped land on the outskirts of cities at a maximum density of twelve dwellings per acre. The report advocated what it described as the 'two-storey cottage', built in short terraces and each with an inside toilet and bathroom, hot and cold running water and rear garden. Considerable attention was given to the arrangement of roads and the need to ensure that they did not become shortcuts and attract traffic from main thoroughfares;

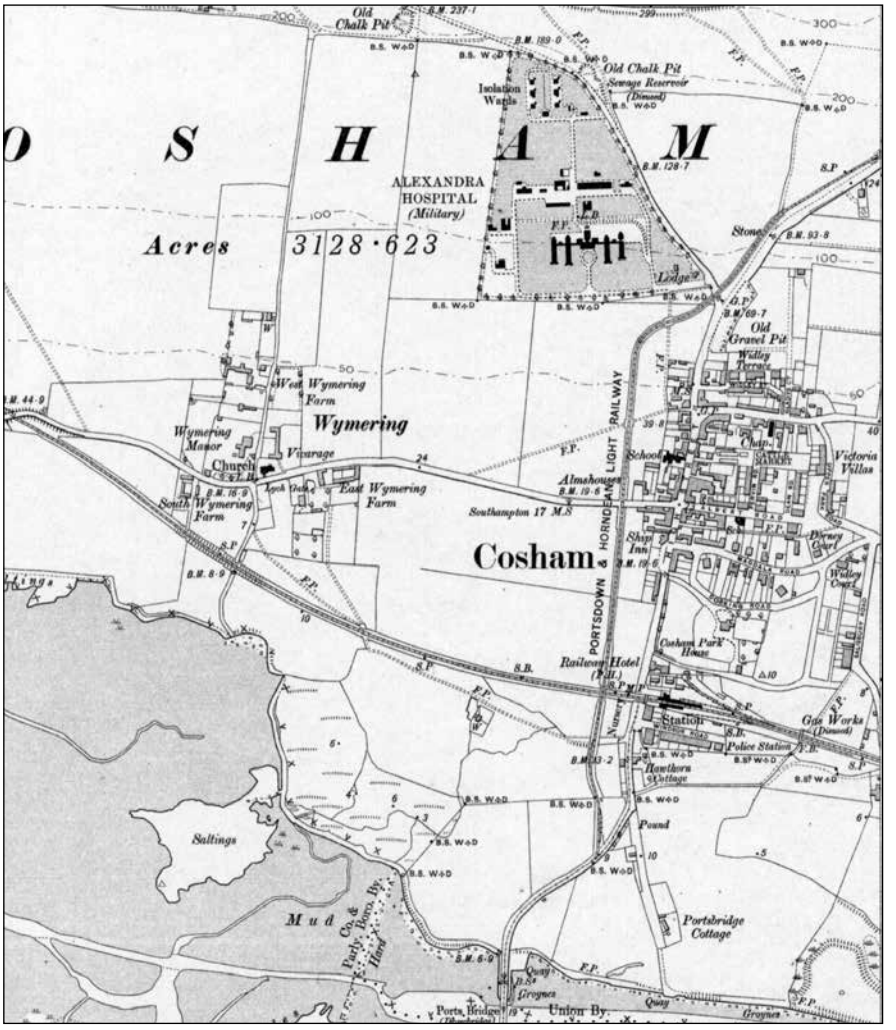
Medina Road, Wymering Garden Village. 'Homes Fit For Heroes', inspired by Raymond Unwin's Garden Suburb movement.

Minstead Road, Eastney. Two-storey cottages built under the 1919 Housing Act that Lloyd George had promised in the postwar 'Khaki Election'.

culs-de-sac were especially endorsed for safe children's play. Meanwhile, the government passed a Housing and Town Planning Act in 1919 that was aimed at ensuring the provision of 'homes for heroes' through generous Exchequer subsidies for public housing. It also required local authorities to determine local housing need and, with Ministry approval, take action to address it. Further Housing Acts in 1924 and 1930 increased the subsidies to local authorities building housing for rent to low-paid workers.

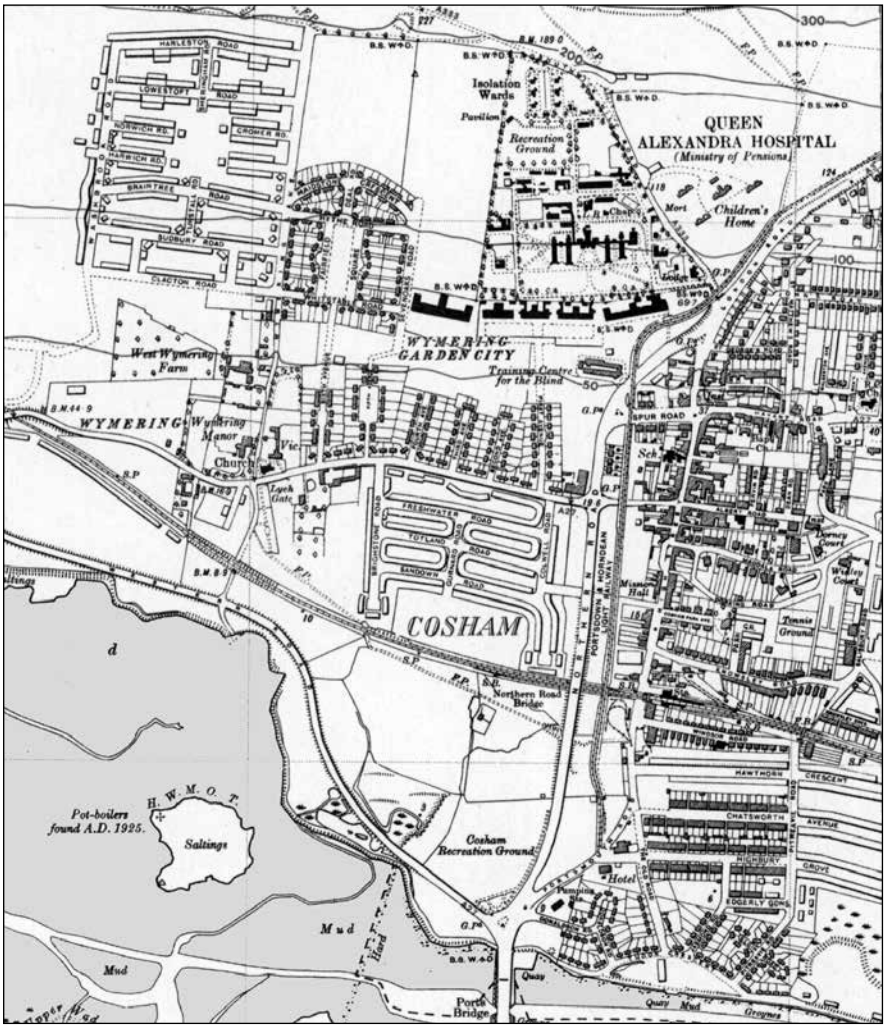
In Portsmouth, the first result of this momentous shift was Wymering Garden Village, a development of about 100 'homes for heroes' built in 1922-24 along First, Second and Third Avenues. Almost 500 more houses were

Hilsea Crescent, Hilsea. Council housing built in the late 1920s.



Cosham and Wymering, 1911. The two ancient settlements had not attracted much development at the start of the twentieth century, despite the presence of a railway station at Cosham since 1847.
Extract from Ordnance Survey Sheet LXXV.SE 25" series (not to scale). Reproduced with the permission of the National Library of Scotland.

built under the 1919 Housing Act in Copnor, Eastney, Milton, and North End. After the 1924 Housing Act almost 800 houses were built in Drayton, Hilsea, Paulsgrove, Portsea, and Stamshaw, along with another 200 in Wymering. The 1930 Housing Act resulted in a further 450 houses in Wymering and the development of the Isle of Wight estate just south of Wymering. Most of this new council housing provided tree-lined streets and homes built to more generous standards than conventional housing. As a result, they were populated by the 'respectable' working classes rather than the most needy, even though the estates were initially established with former slum-dwellers in mind. The rents that the council had a statutory duty to charge were higher than could be afforded by the least well-off. It did not help in alleviating the worst slums that applicants for the new estates were vetted for suitability and obliged to demonstrate a record of regular rent payment before being allocated a dwelling.



Cosham and Wymering, 1938. Speculative residential development had spread to Cosham along with council housing on the 'Isle of Wight' estate (where street names carry the names of towns on the island), while the village of Wymering was surrounded to the north and east by council housing.
Extract from Ordnance Survey Sheet LXXV.SE 25" series (not to scale). Reproduced with the permission of the National Library of Scotland.

Freshwater Road, Cosham. Part of the 'Isle of Wight' estate built in the 1930s.

Homes for Consumers:

While the public sector produced a couple of thousand homes in Portsmouth between the wars, it was the private sector that accommodated most of the city's interwar growth. After the financial crash of 1929 building societies were flooded with money by households seeking a safe haven for their savings. Suddenly cash-rich, they were emboldened to drop their requirement for a deposit from 25 percent of the purchase price to 10 or even 5 percent while extending mortgage repayment periods from fifteen years to thirty. With house prices falling to their lowest ever level, the idea of home ownership blossomed. In the early 1930s, semi-detached homes on Rectory Avenue, Farlington, were available from John Britton Builders for £595, with a £20 deposit. G. & W. Mitchell offered homes on Highbury Grove at £595 and £640; the weekly repayments of 21 shillings and elevenpence included the property rates. The lure of homeownership became so strong that many families were willing not only to stretch household accounts to meet mortgage payments but also to acquire furniture on hire-purchase and furnish rooms one by one as they could afford to. The appetite for homeownership also gave rise to a few dozen 'plotlanders' – frontier households who set out to build with their own hands, often homesteading with a disused railway carriage, a garden shed, or an ex-army hut, as in the Cosham Hutments on the site of what is now Chalkridge Road. Town planning, meanwhile, barely existed as a profession. Portsmouth, like most other local authorities had not acquired a professional planning staff in time for the house-building boom. As a result, almost all interwar growth took place without the benefit of land-use planning.

Chatsworth Avenue, Highbury. Built between 1934 and 1936, the estate consists of repeated terraces of six, 2-storey, dwellings with large distinctive arches above their front doors, tile-hung bay windows, and decorative boundary walls.

But although local builders such as H.E. Collins, G.A. Day, A.E. Porter, Samuel Salter, E. & A. Sprigings, Tanner Brothers, George Wallis, and J.R. Winnicot may have had a relatively free hand in terms of planning permission, the inexorable logic of cost-saving and competition led to most homes being designed around a 'universal plan' that produced two-storey houses with two ground-floor rooms (a living room and a front room, one behind the other), a kitchen behind the entrance hall, and, upstairs, three bedrooms, a bathroom and a toilet. The bathroom and toilet were always above the kitchen, and the smallest bedroom above the entrance hall. On Portsea Island, much of this development took the form of rigid grids of terraced properties that accounted for the remaining unbuilt land in Copnor, Baffins, and Milton.

Rectory Avenue, Farlington. Semi-detached homes built in the 1930s by John Britton Builders and sold for £595 each.

Further afield, in Cosham, Drayton, and Farlington, the preferred format was for semi-detached homes or short runs of four or six homes, allowing those at each end to be advertised as semi-detached. In terms of appearance, the first consideration for builders was to avoid any semblance of working-class terracing or council housing. Bay windows were a pervasive component, since they were a feature that was never found in council houses. Grass verges and tree lined avenues were also useful markers. While interior layouts might conform to the universal plan, exterior detailing was finely differentiated by developers in the hope of exploiting marginal symbols of social distinction. Double storey, tile-hung bays, decorative boundary walls and front porches easily lent themselves to minor variation, as did door and window treatments, building materials and finishes. The result was what the cartoonist and critic Osbert Lancaster memorably characterized as 'Bypass Variegated'.

Havant Road, Farlington. An example of 'Bypass Variegated' suburban housing along the A2030.

Dolphin Court, St Helen's Parade. Mansion blocks such as this catered to the city's changing demographic profile, offering a fashionable format for a flexible lifestyle.

Telephone House, Southsea. An example of the 'Moderne' style popular in the interwar period. Built as the administrative headquarters of GPO telephone services in the Portsmouth area; now refurbished as Friendship House apartments and community centre.

Landscapes of Automobility

Although Portsmouth did not, strictly speaking, have a bypass, the growth of automobile ownership left its mark on the cityscape in other ways. While the inner suburbs relied initially on corporation bus services and the Southdown bus company served the suburbs along the slopes of Portsdown Hill, Portsmouth's middle-class exurbs on Hayling Island and in Emsworth, Havant, Purbrook and Waterlooville were entirely the product of automobility. With the mass-production of simpler, smaller designs such as the Austin Seven (it had a seven-horsepower engine), the price of cars fell dramatically – the real cost of car ownership fell by over 40 percent in the twelve years after 1924. Smaller cars were accessible to a much larger number of buyers and became popular in suburbia because their narrow wheelbases allowed them to be parked in the slender driveways at the side of semi-detached houses.

The response of public authorities to the sharp increase in car ownership was to build arterial roads. In Portsmouth, a second road bridge onto Portsea Island was opened in 1941, leading to the new Eastern Road. The utility of the new arterial road was limited, however, as it simply stopped short against the built-up edge of 1939 Milton.

Nevertheless, cars began to be used more and more to reach everyday destinations. Motor showrooms and petrol stations sprang up in and around the city, along with roadhouse pubs such as the Good Companion on the Eastern Road, the Harbour Lights and the Manor House in Cosham, the Star and Garter and the Golden Hind in Copnor and the Coach and Horses in Hilsea. By the late 1920s many new suburban detached houses came with a separate garage, while for semis a small space, offset to the rear of the house, was typically provided for a garage that could be added later. By the end of the 1930s the better class of semis had garages built into the design of the house, often with a box room fitted over the top. The owners of older semis bought garages in kit form, built with concrete frames, asbestos panels, wooden doors and corrugated iron roofs.

The Coach and Horses, Hilsea.
Roadhouse pubs such as this began to appear as car ownership increased dramatically after the mid-1920s.

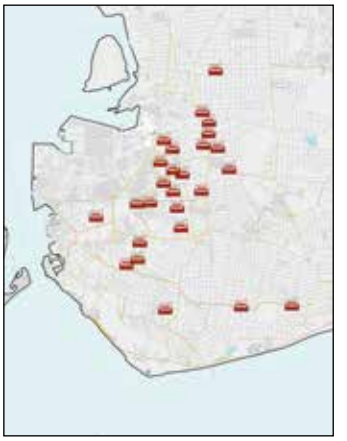
Diversifying Economy

The economic transformation that had created the new white-collar jobs, transport systems and residential suburbs of the 1920s and 1930s also generated a new range of mass consumer products. By the Second World War three quarters of the population had gas cookers; many had electric irons, electric fires and vacuum cleaners; and some even had refrigerators and washing machines. This, in turn, generated new investment in retailing. Bigger stores were concentrated along Commercial Road and in North End, while the new inter-war suburbs all acquired purpose-built parades of shops with accommodation above. Local shopping parades were typically located on busy thoroughfares and the shops were mostly independently owned, offering a cluster of convenience goods and services to local residents: butchers, bakers, greengrocers, laundries, newsagents, post offices and pubs; and perhaps a small library or tea room.

The city economy diversified as light engineering and manufacturing found its way into the city, adding new single-storey factories with sawtooth roofing to the cityscape. In the early 1920s brushmaking was the second most important civil industry in the city, after corset manufacture. But after the Great Depression of 1929-32 the recovering consumer economy supported a broad range of small- and medium-scale industries in the city. The Portsmouth Industries Exhibition, held annually in the Connaught Drill Hall or the Town Hall, featured local firms producing everything from apparel, cardboard boxes, chandlery, confectionery, footwear, furniture, electrical goods, household goods, leather goods, musical instruments, neon signs, sheet metal, shop fittings, stationery, steel springs and steel fencing, to toys and vehicle parts. The opening of an aerodrome on a 276-acre site in the northeastern corner of Portsea Island in 1932 brought aircraft manufacture. Airspeed produced single-engine, six-seater Courier aircraft, Envoy twin-engine transports and Oxford twin-engine military training aircraft before going on to produce Mosquito fighter-bombers for de Havilland during the Second World War. But the principal growth sector in the city's interwar economy was tourism.

Shopping parade, Copnor Road. The emergence of a consumer society brought a boom period for investment in local shopping parades. Most featured flats with elaborate facades above the shops.

Leetham corset factory, Eastney. One of six factories in the city operated by Leethams; later a Twilfit factory and now converted to a supermarket.



Corset factories. After the First World War, the city's corset-making industry began to consolidate, but Kelly's Street Directory still listed 24 stay and corset makers in1924. Data from <http://www.ataleofonecity.portsmouth.gov.uk/topic/corset-making/>

Corset factory, Fratton. Built in 1921, it was one of the last purpose-built corset factories in the city. Now converted to flats.

Tourism and Entertainment

Recognizing the need to counter the sudden decline in Dockyard employment, the city began to invest in developments that would support the principal alternative: tourism. This had the additional short-term advantage of job creation as several infrastructure projects were launched. Having extended the seafront esplanade to Eastney using government grants, the corporation managed to purchase Southsea Common from the War Office in 1922 and promptly laid it out with ornamental and rock gardens, bowling greens and tennis courts, putting courses, an aviary, fountain and children's paddling pool. The westernmost part of the Common was kept as an extended grassy area for recreation and special events. The corporation also purchased the Victoria Pier and the Pembroke Gardens area near the

Beach Huts, Eastney. In response to the increased popularity of seaside holidays and sunbathing, the city Council improved the seafront infrastructure, including several groups of beach huts.

Garrison Church. The ramparts around Clarence Pier were restored and opened to the public, and the pier itself, now much more accessible, attracted a large fun-fair. At the other end of the esplanade, the city installed rows of beach huts to encourage sunbathing and sea bathing and acquired the Lumps Fort site in order to preclude private development that might not be in keeping with the desired image for the seafront.

After the Health Resorts and Watering Places Act 1921 finally made it legal for municipal corporations to incur expenditure directly on publicity, the city moved quickly to promote Southsea as a distinctly 'up-market' setting, and the resort became the focus of the city's guidebooks. In 1928 the city acquired Cumberland House by the Canoe Lake and converted it into an art gallery and natural history museum. New sea-front kiosks, pavilions and chairs were installed along the esplanade, along with 10,000 coloured lights. The corporation sponsored carnivals, galas, competitions, pageants and firework displays, along with a civic week and a children's week. After HMS *Victory* was opened to the public in 1928, Navy Week became immensely popular with both tourists and locals. The Schneider Trophy races for seaplanes, held around the Solent in 1923, 1929, and 1931, also brought the city the kind of publicity it sought in order to differentiate itself from competitors such as Bournemouth, Brighton, and Blackpool. For the 1929 event, stands for 10,000 people were erected along the sea front for visitors to watch the seaplanes race around a triangular course around Calshot Spit. The winner was the Supermarine S.6B, a precursor of the Spitfire.

Not all of the city's investments were targeted at tourists. The corporation purchased the Great Salterns estate and made provision for a golf course there, while the moats and ramparts of the Hilsea Lines were purchased and opened up as a civic amenity, featuring a large, modern, outdoor lido and gardens. Cosham was provided with a small park, a municipal swimming pool was opened in Stamshaw, bowling greens were laid out in Tipner, and new branch libraries were opened in Milton and Cosham.

Private-sector investments in leisure and entertainment also began to populate the cityscape. A greyhound stadium opened at Tipner and a horse racing course was developed at Paulsgrove. Traces of the greyhound track can still be made out on the derelict site in Tipner but the only trace of the racecourse at Paulsgrove is a bus stop on the A27 named for Racecourse Lane. The city's professional football stadium at Fratton Park remains an important landmark. The South Stand, built in the 1920s and designed by

Archibald Leitch, is the oldest part of the stadium still in use. The interwar period saw the successes of the club grow consistently, from winning the Southern League and becoming a founder member of the new Third Division in 1920, to gaining promotion to Division Two in 1924, to Division One in 1927, to FA Cup finalists in 1929 and 1934 and FA Cup winners in 1939.

Fratton Park. Portsmouth Football Club enjoyed a run of successes in the interwar period, culminating in winning the FA Cup in the 1938-39 season. In 1925 a new and larger South Stand was built, designed by renowned football stadium architect Archibald Leitch. This left the mock-Tudor main entrance as the only remaining element of A.E. Cogswell's original pavilion of 1898.

Rose Garden, Eastney. Lumps Fort was purchased by the city Council in 1932 and converted into a rose garden, sheltered by the fort's ramparts.

(top) **Former Gaumont cinema, Fratton.** Opened in 1928 and originally called the Plaza, it was the first cinema outside London to show a talking picture. It closed in 1965 and operated as a bingo hall until 1997, when it was converted into a mosque.

(bottom) **Former Shaftesbury cinema, Kingston Road.** Opened in 1890 as a theatre, Shaftesbury Hall; by 1910 it was operating as a cinema. The Shaftesbury Cinema was closed in 1959, and became the first cinema in the city to be converted into a bingo club. Now scheduled to be converted to apartments.

Cinemas brought another set of new landmarks across the city. The moving picture halls that had served the city during the First World War were replaced by new cinemas – more than 30 of them by the start of the Second World War, with a combined seating capacity of more than 25,000. Perhaps more than any other kind of building, cinemas embodied the hedonistic spirit of the time and the escape from reactionary Victorian and Edwardian architectural ideals. Art Deco was the dominant styling, but many were highly individualistic and became important suburban landmarks, key elements that helped residents to structure their mental maps of the changing city. Almost every district in the city had at least one cinema, almost all of them with striking facades, fancy lounges and plush seating. The largest of them were called picture palaces with good reason. The first talking picture to be shown outside London was at the Gaumont on Bradford Junction on 28th January 1929. The Gaumont, like all of the city's surviving inter-war cinema buildings, hasbeen repurposed.

(opposite) **Former Majestic Picture Theatre, Kingston Cross.** Opened in 1921, it was another design by Portsmouth architect A.E. Cogswell. It was refurbished and re-opened in 1949 as the Essoldo; after it closed in 1976 it was used as a snooker hall and karaoke venue.


Lounge Snooker Karaoke

War Again

With the outbreak of war Southsea and much of the rest of the coast around Portsea Island was barricaded with barbed wire and placed out of bounds to civilians. What was left of Hilsea Lines was occupied by the Home Guard. The government supplied thousands of backyard Anderson air-raid shelters and civilians literally dug in. The city's civilian craft were called into action in late May and early June 1940 as tugs, pleasure craft, Hayling Island ferries and an Isle of Wight paddle steamer joined Royal Navy destroyers and frigates in rescuing Allied troops from Dunkirk beaches. The first air raid on the city took place a week later.

With Portsmouth now vulnerable to German air attack the high seas fleet withdrew but the Dockyard was once again a hive of activity, refitting smaller vessels with radar and modern armament and building a fleet of minesweepers. During the war the Dockyard workforce grew from around 14,000 to just over 25,000. Meanwhile, the cityscape was dramatically altered as a result of the Blitz. Between July 1940 and July 1944 the city was the target of 67 raids during which the Luftwaffe dropped 38,000 incendiary bombs, 1,320 high explosive bombs, and a few dozen parachute mines on the city. The first big raid, on the night of January 10, 1941, killed more than 500 civilians, destroyed the shopping centres in Southsea and Commercial Road, reduced much of Portsea and Somerstown to rubble, and destroyed or severely damaged many local landmarks, including the Guildhall, the Royal Sailors' Rest, Clarence Pier, four cinemas, and several churches (including the Garrison Church). Two months later, raids on three successive nights inflicted further widespread damage, and there were intermittent raids for another three years, culminating in terrifying V1 'doodlebug' cruise missile attacks. Overall, 930 civilians were killed and more than 1,200 seriously injured. About ten percent of the city's housing stock was destroyed and another ten percent severely damaged. A hospital, eight schools and 30 churches were completely destroyed, along with more than 100 pubs.

Static Water Supply (SWS) sign.
During the Second World War water sources were located around the city to provide emergency water in the event of fire caused by bomb damage. A few signs still survive, including this one on Langstone Road.

Anti-tank blocks, Eastney beach.
Installed in the summer of 1940 on the vulnerable stretch of foreshore between Fort Cumberland and Eastney Fort East, they are now Listed Grade II by Historic England.

As the tide of war changed, Portsmouth was at the heart of D-Day operations. An underground Combined Operations Plotting Room was established below Fort Southwick, and Eisenhower's headquarters were tucked away behind Portsdown Hill in the woods around Southwick House. Mulberry Harbour units were built in Langstone Harbour and Portsmouth Harbour, and the Dockyard geared up to produce landing craft. Prior to the landings more than 3 million men were mustered in 24 different marshalling areas around Portsmouth before boarding the 7,000 vessels that sailed on June 6, 1944.

The war's legacy on Portsmouth's cityscape was mostly negative, though it could be argued that the Luftwaffe saved postwar planners the job of slum clearance in Portsea, Landport and Somerstown, leaving room for postwar redevelopment. Smaller gaps in the fabric of the city resulting from bomb damage became invitations to piecemeal infill development that more often than not resulted in jarring juxtapositions – contributing, perhaps to Pevsner's unsympathetic opinion of the Portsmouth cityscape as 'muddled and visually squalid.'

Mulberry Harbour wreck. The remains of a faulty Type C Phoenix Breakwater module, built on Hayling Island and designed to be part of the Mulberry Harbour infrastructure that was key to the D-Day landings in Normandy in 1944.

Reconstruction: 1945-1979 5

Postwar reconstruction erased some of the accumulated distinctiveness of Portsmouth's cityscapes. The Welfare State, translated through a newly-empowered Modernist town planning orthodoxy, not only recast society but also its cityscapes. National economic recovery also imposed a certain blandness in the form of chain stores, light industrial parks, suburban sprawl, new road works, and the ubiquitous clutter of on-street parking. Nevertheless, these general aspects of postwar British urban development had to be accommodated within Portsmouth's unique physical setting, its acute shortage of buildable land, and its exceptionally extensive legacy of war damage. The city's specialized economic base meanwhile ensured that, for better or worse, it retained much of its character, and the successes of the football team – national champions in successive seasons 1948-49 and 1949-50 – did wonders for local pride. The ethos of Pompey's team – hard and aggressive, with no individual stars – also helped to reinforce the city's long-standing identity in relation to London and the rest of the South.

The Welfare State not only recast society but also its cityscapes

In 1950 the Dockyard still employed more than 26,000 and the upper reaches of the harbour were crammed with a reserve fleet of more than 70 warships. Many of them had an outing to Spithead in 1953 as part of the Coronation Fleet Review that stretched for 14 miles and featured two hundred ships. Shipbuilding and refitting continued in the Dockyard but at a much-reduced pace. The period between 1955 and 1967 saw the launch of several frigates – *Leopard, Rhyl, Nubian, Sirius* and *Andromeda* – and a major refit for the aircraft carrier *Victorious*. But the decommissioning in 1960 of the Navy's last remaining battleship, the *Vanguard*, proved portentous, especially as she broke her tow en route to the breaker's yard, grounding in the harbour entrance alongside the Still & West public house.

By 1968 the Dockyard workforce had been halved, to 12,000; and by 1978 it stood at 8,325. Nuclear weapons meant that politicians felt that the Navy could be dramatically reduced without reducing overall geostrategic capabilities, while the geopolitical landscape of the Cold War meant that surface warships were seen as secondary to submarines armed with missiles. The Dockyard Technical College was closed in 1970, and the Ministry of Defence began to divest itself of redundant properties. Point Barracks in Broad Street and Hilsea Barracks were sold off, Fort Cumberland was closed, and surviving parts of Clarence Barracks were briefly converted for use by the WRNS before being sold to the City Council to house its Records Office

(opposite) The Tricorn.

Clarence Pier area. A seven-hour air raid on 10 January 1941 destroyed the original pier that had been built in 1861. The rebuilt postwar complex, opened in 1961, was dominated by a funfair that has always been out of character with the rest of the seafront.

and the City Museum and Art Gallery. Meanwhile, the city's holiday trade was slow to reestablish itself. Clarence Pier, destroyed by bombing in 1941, was not reopened until 1961. When the national economy picked up in the mid-1960s, Southsea lost much of its former clientele to package holidays in Mediterranean resorts. Southsea's tourist economy moved steadily downmarket in the late 1960s and 1970s, sustained only by the elderly on limited budgets and day trippers from London. It was not until the 2000s that it began to be revived by an entirely different type of visitor, interested in Portsmouth's naval and military heritage.

A Postwar Consensus

Recovery and reconstruction around the rest of the city were hampered by shortages of timber and steel and by the continuation of strict building controls that had been imposed during hostilities. But amid the austerity there was an entirely new sensibility. The complacent middle-class attitudes of the inter-war period had been replaced by a 'postwar consensus': a determination to break with the past and a conviction that centralized planning – which had served the country well during the war – was necessary to forge a new, more prosperous, healthier, and more equitable society. A Labour government swept into power in the summer of 1945 with a mandate to implement a comprehensive programme of civil reformation and social engineering that

included the establishment of a 'cradle to grave' welfare state, the selective nationalization of major industries and utilities, centralized economic planning, urban land use planning, a commitment to affordable public housing and higher education, the development of New Towns, and the creation of Green Belts around large cities.

This radicalism was rooted in pre-war concerns. On the one hand, the Depression had highlighted the country's weak and uneven industrial structure and generated a vociferous lobby on behalf of impoverished cities. On the other, suburban sprawl had generated an influential lobby of rural conservationists. The two groups formed an unlikely alliance in support of stronger planning legislation, with the result that royal commissions were established, reporting in the midst of the Second World War on the geographical distribution of industry (the Barlow Report), on the issues involved in public control of land use (the Uthwatt Report) and on the potential contours of a welfare state (the Beveridge Report). Ultimately, the postwar consensus that created the welfare state was the nation's settlement for the burdens of duty and sacrifice. It provided the foundation on which, for a generation or so, working-class families could learn, thrive, and give something back: the greatest expression of humanity through policy that British society has ever demonstrated.

Modernism, clean and futuristic, was widely perceived to be the logical aesthetic

Early Planning

As if in anticipation of all this in the aftermath of the great incendiary-bomb raid of 1941, Portsmouth's city council had instructed the City Architect and City Engineer to draw up plans for reconstruction based on the 'conception of a fully self-contained City, including all the amenities necessary for the health and wellbeing of its citizens: making full provision for business requirements, and for a Civic Centre in accordance with the traditions and dignity of the City'.[19] Drawing on the theories of urban planning seers Patrick Abercrombie, Barry Parker and Raymond Unwin, the wartime plans envisaged the creation of satellite towns and a green belt just beyond Portsea Island, with the city itself restructured around neighbourhood districts bounded by arterial streets and centred on a local primary school and shops.

In the climate of economic recovery and reconstruction after the Second World War, the idea of 'winning the peace' through planned redevelopment had widespread appeal. There was a strong sense of optimism that planning and urban design could make a significant contribution to the progressive social change envisaged by the founders of the welfare state. Modernism, clean and futuristic, was widely perceived to be the logical aesthetic, especially since it was rooted in ideals of collectivism, standardization and social egalitarianism. Avant-garde design had coalesced around Modernism in the inter-war period as a unifying system of technology and aesthetics that

[19] Stedman, J., 'Portsmouth Reborn: Destruction and Reconstruction 1939-1974,' *Portsmouth Papers*, 66, 1995, p. 11.

Paulsgrove. Portsmouth City Council purchased land at Paulsgrove in 1945 and began building to relieve the overcrowded and substandard housing on Portsea Island that had been spared by the Luftwaffe..

Architecture and planning were to be agents of redemption and the physical manifestation of social reform

was seen by its advocates as a revolutionary stand against the elitism of nineteenth-century bourgeois culture. Architecture and planning were to be agents of redemption and the physical manifestation of social reform. Through functional design, modern materials and industrialized production, architecture and planning would finally improve the physical, social, moral and aesthetic condition of cities. An evangelical spirit was central to postwar architecture and town planning: cities should be better places; they *could* be. The stage was set for a golden age of Modernist planning on a truly heroic scale. The overall aim was to tidy up and modernize cities, clearing out the legacy of unregulated development and making them more efficient for industry as well as more equitable and amenable for residents.

But post-war planning was, in practice, fractured and incoherent, hampered by a lack of trained planning professionals, by political and bureaucratic indecision in applying for designation of the Areas of Extensive War Damage, by opposition from business interests, difficulties in identifying the owners of small bombed-out sites, and by the costs of acquiring land. One project that did get resolved fairly quickly was the repair of the Guildhall's Pompey Chimes in 1950. The restoration of the building itself was not completed until 1959. Meanwhile the overwhelming priority was for housing and, given the widespread acceptance and popularity of the welfare state, public housing estates soon appeared in cityscapes everywhere.

Portsmouth City Council targeted the slopes of Portsdown Hill for an ambitious programme of housebuilding, purchasing the site of the former racecourse in Paulsgrove and land to the north of Wymering Garden Village. By the end of 1946 the Council had built a thousand houses, with another

BISF housing, Deerhurst Crescent. In Paulsgrove, non-traditional methods of construction were used on a large scale in response to the need for speedy construction. About 1,000 steel-framed, semi-detached British Iron and Steel Federation (BISF) houses were built.

thousand added by the end of the following year. The estates were built in pared-down Garden Suburb style, with open spaces, short terraces, and houses with small gardens. Compared to pre-war terraces on Portsea Island, the houses were large, with hot running water, bathrooms, inside toilets and electricity. Almost half of them were prefabricated, made in sections in factories and fitted together on site. Most were British Iron and Steel Federation (BISF) houses, which had distinctive steel sheet cladding on the upper floor. John Howard & Company houses, designed by Frederick Gibberd, one of Britain's leading postwar architects, had asbestos cement cladding panels made on an industrial estate in Fratton. Like BISF houses they could be erected on a concrete base by a team of four in just one day.

The stage was set for a golden age of Modernist planning on a truly heroic scale

Soon after starting work on the Paulsgrove estates the city began building at Leigh Park, just four miles to the east of Drayton, where the Council had secretly purchased 1,672 acres of land toward the end of the Second World War. It had been envisaged as 'The Garden City of the South' along the lines of Ebenezer Howard's Letchworth Garden City: a self-contained community clustered around a central civic quarter and shopping area. To that end the Council purchased a further 798 acres of land in 1946. Work started on the first houses in 1947 and the first residents moved into the new properties in 1949. By that time, though, good intentions had been overtaken by expediency, the garden suburb project having devolved into an overspill estate. Within ten years the population of Leigh Park had reached almost 30,000 and the estate was extended to accommodate more than 40,000 by the early 1970s. Not surprisingly, it took some time for amenities to become established. There were initially no pavements or street lights, no doctor or post office, and no permanent shops until 1955. It took until 1956 for regular public transport connection to the city. The residents of the Paulsgrove estates suffered similar deprivations.

Everyday Modernism

In the mid 1950s the Council's attention turned to the 7,000 properties on Portsea Island that had been spared by the Blitz but identified as unfit for habitation. By then, public housing had become a political numbers game, initiating a golden age of council building that was to last for 20 years. The Conservative government set a national target of 300,000 units per year and introduced incentives that favoured the industrialized system-building techniques and economies of scale offered by big building firms. The result was a proliferation of courtyards of maisonettes and tower blocks surrounded by tracts of public open space. Modernism became an everyday element of British cityscapes, a visible rupture with their templates of Victorian and Edwardian terracing. First though, substandard housing had to be razed. In Portsmouth, extensive tracts of Portsea, Old Portsmouth, Somerstown, Landport, and Buckland were scheduled to be, in the jargon of the time, comprehensively redeveloped.

Somerstown saw the most complete transformation. Surviving artisan houses, shops and pubs were replaced by tower blocks of 18 and 25 storeys, interspersed with four- and five-storey maisonettes. By 1969 1,245 new dwellings had been built inside an area of 33 acres. City planners also took the opportunity to build a new east-west main road – Winston Churchill Avenue – through the district, cutting it in two. Similarly, they took advantage

Somerstown Redevelopment. Between 1964 and 1969 most of the remaining houses to the west of Somers Road were torn down. The Council replaced them with high rise and medium rise flats. By 1970 1,245 new dwellings had been built inside an area of 33 acres.
(Top left) **Dunsmore Close**.
(Bottom left) **St James's Road.**
(Below) **Sackville Street.**

Winston Churchill Avenue, Somerstown. Created in the early 1970s as a key east-west route across the city, it cut Somerstown in two, with few safe crossing points.

of the redevelopment of Buckland and Stamshaw to bring the M275 into the heart of the city from its bridge over the Tipner mudflats. Landport acquired some of the lowest quality surviving examples of post-war architecture: the likes of Lords, Crown and Wimpole Courts, utilitarian, prefabricated deck-access 4- and 6-storey groundscapers built by national contractor Wimpey.

The worst example of all, the Portsdown Park estate on the slope of Portsdown Hill below Fort Widley, was demolished just 14 years after completion. London's overwhelming dominance had prompted a search for potential development zones to form counter-magnets to the metropolis, and the 1964 *South-East Study* identified the coastal corridor of south Hampshire as capable of absorbing a population increase of up to 300,000, including overspill from a thinned-out Portsea Island. Portsdown Park was the sort of development envisaged as part of a linear 'Solent City'. The product of a national design competition, it embodied the several attributes advocated by Modernist architects: a sculptural ensemble of high- and mid-rise units, aerial walkways separating pedestrians from traffic, and system-building methods. It was a disaster from the start: before the buildings had been completed, water had penetrated many of the units. Contractors were unable to rectify the problem of water penetration. Nevertheless, families were brought in. Not surprisingly, perhaps, social malaise and vandalism promptly became a hallmark of the estate.

(opposite, top) **Portsdown Park.** The ill-fated development on Portsdown Hill, completed in the early 1970s and demolished in 1987 after severe water penetration.

(bottom) **Grafton Street, Buckland.** Six-storey blocks that shielded the Buckland redevelopment area from the noise of the M275. The mid-1970s development included a special school, day nursery, health centre, community centre and interlocked blocks of flats.

A similar fate befell the Tricorn Centre, a mixed-use development that, it was hoped, would be the flagship of urban regeneration. Its mix of shops, pubs, social housing and car parking added up to a megastructure the size of a city block that embodied all the latest thinking about Modernist urban design: pedestrian walkways, off-street car parking and Brutalist-style poured concrete. It photographed well, earned critical acclaim, and secured a Civic Trust Award for 'exciting visual composition'. But popular opinion regularly placed it on lists of the country's ugliest buildings. More importantly, it did not function at all well. The concrete began to stain and spall, the sun never reached its central square, rainwater collected on the decks and dripped onto parked cars, retail spaces remained unlet, and flats were unpopular. It was eventually demolished in 2004.

Modernist designs turned out to be sculpture posing as architecture, boxes posing as homes

Critiques of the welfare state's everyday Modernism had been mounting even as Portsdown Park and the Tricorn Centre were in their design phase. The combination of architects' idealism – carried away with prescriptive, deterministic and futuristic schemes – and cost-cutting by cash-strapped local authorities resulted in grim and forbidding council estates that weathered poorly and soon looked shabby; with houses and flats that leaked and condensed, and towers where lifts did not work. None had sufficient amenities and many seemed to breed anti-social behaviour. The most vaunted Modernist designs turned out to be sculpture posing as architecture, boxes posing as homes. Basic design faults in system-built towers were brought to light by the collapse in 1968 of the system-built Ronan Point, a new residential tower in Newham. Eight of Portsmouth's early tower blocks had been built using the same panel system of construction and had to be evacuated before an expensive programme of remodeling.

Meanwhile, town planners were not deterred. A masterplan for Portsmouth reaffirmed Commercial Road as the city's main commercial and business area with Palmerston Road as a secondary retail centre. Rebuilt, both ended up as the preserve of the national multiple stores with the bland cloned aesthetic of New Town shopping centres. The Camber was reaffirmed as the city's commercial harbour while Old Portsmouth was to be an area of 'high-class' housing and Langstone Harbour was envisaged as a base for long-distance commercial flying boats. The area around the Guildhall was zoned as a civic and academic quarter, and by the late 1970s had been redeveloped with a pedestrianized Square flanked by civic offices faced in brown mirror glass and a new Central Library in Brutalist concrete that echoed the ill-fated Tricorn.

(Opposite, clockwise from top left) **Nickleby House, Buckland.** One of eight blocks of flats in Portsmouth built with a similar system to Ronan Point.

Ladywood House, Somerstown. 24-storey tower built in 1971.

Horatia House (formerly Solihull House) and **Leamington House, Somerstown.** Two more tower blocks built in 1965 using a similar system to Ronan Point. Both were evacuated in 2018 as a result of concerns over structural integrity.

Portsmouth Civic Centre. A masterplan drawn up in the late 1960s sought to create a new civic and academic area around the Guildhall. But both the smoked glass panels of the mid-1970s Civic Offices, (top) and the Brutalist concrete of the Norrish Central Library (bottom), also from the mid-1970s, soon seemed dated and lacklustre, leaving the civic core with a tired look and feel.
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Economic Diversification

Beside reconstruction and housing, economic diversification was a top priority for the Council. The postwar contraction of the Dockyard resulted in large-scale redundancies, and the city's traditional manufacturing industries, especially clothing, brewing, brush-making and steel working, were steadily shedding labour. With the emergence of the welfare state, office jobs in public administration grew significantly, but it was not enough to offset losses in the city's traditional economic base. Following pre-war economic development strategy, light industrial estates were established to attract high-technology engineering and electronics firms. The first to be designated, in 1948, was on land adjacent to the Fratton railway engine sheds and marshalling yard. Others were zoned on scattered patches of available land at Buckland, Burrfields, Drayton, Farlington, Paulsgrove and Wymering. The industrial estate at Leigh Park brought employers such as Kenwood and Plessey to the area, but industrial and commercial development was otherwise hampered by a lack of buildable land – and this at a time when London's overheated economy meant that many firms were seeking to establish themselves in lower cost areas in the south-east with main-line railway connections to central London. The Zurich insurance company acquired sufficient land on the site of the demolished *Evening News* building near Portsmouth and Southsea railway station to build a 15-storey headquarters building with sleek glass curtain walls. It made for a distinctively modern but lonely corporate element in the city centre.

One answer to Portsmouth's space problem was land reclamation along the shores of Portsmouth and Langstone Harbours, achieved by way of polders filled with refuse and chalk rubble. The creek between Horsea Island and the shore at Paulsgrove was filled in to create Lakeside North Harbour office park. IBM set up a pilot headquarters office nearby before developing an extensive UK headquarters office complex on the reclaimed land. The pilot office (now called Lynx House and occupied by HM Revenue and Customs) represented an unusual acquisition for Portsmouth: a building acclaimed by the architectural press. Designed by Norman Foster Associates, it was listed as a Grade II building by English Heritage in 2015. Meanwhile, the reclamation of harbour mudflats around Rotten Row Creek provided space for the extension of Flathouse Quay and the creation of Albert Johnson Quay, where the city invested £20 million in developing a continental ferry terminal. Opened in 1976, Portsmouth International Port is now the second largest passenger ferry port in the UK (behind Dover), with services to Caen, Cherbourg, Le Havre, Bilbao, Santander and the Channel Islands. Two land reclamation projects on the Langstone side of the island – Eastney Lake and the Glory Hole – were reserved for residential development, while Milton Lake was filled in to become Milton Common.

IBM Pilot Head Office, Cosham.
Temporary accommodation built 1970-71 by Foster Associates ahead of the construction nearby of IBM's new UK headquarters. Now occupied by H.M. Revenue and Customs.

IBM complex, North Harbour, Cosham.
Built in the mid-1970s on 408 acres of reclaimed tidal mudflats, it was at one point the largest office complex in the country, employing more than 3,500.

Continental Ferry Port, Rudmore.
Opened in 1976 on the site of the old Rudmore gasworks, it soon became the country's second busiest ferry port.

Another answer to the space problem was the availability of land released by the Ministry of Defence. Portsdown Park had been built on land released by the MoD, and further parcels were released in Portsea (allowing for the expansion of Portsmouth Polytechnic), Old Portsmouth (Pembroke Park), Hilsea (Gatcombe Park), and Eastney seafront. The largest single tract of land to become available for development was the airport. Two minor accidents had shown up the limited size of the field and the dangers of its wet grass runway. It was finally closed in 1973 and subsequently redeveloped, partly as a commercial and industrial park and partly as Anchorage Park residential district.

Infill Housing

Private and speculative residential building did not leave much of a mark on Portsmouth for the first decade or so after the war. Rationing and consumer controls were in place until the mid-1950s and the energy of the recovering nation was channelled into the creation of the welfare state. But home ownership reasserted itself as the economy picked up in the mid-1960s and growing disposable incomes combined with low mortgage rates. Almost 3,500 homes were built in Portsmouth by the private sector between 1966 and 1976 (compared to around 7,250 new council homes). Many of the houses were smaller than council-built homes: the government's Parker Morris standards did not apply to private housing. Small building firms built where they could: in the grounds of demolished mansions, on bomb sites, or in gaps that had been too small for profitable development under pre-war

Langstone campus, University of Portsmouth. Student residences and sports complex built in the late 1960s. The student accommodations were closed in 2018.

conditions. Volume building was challenging because of the dearth of easily developed greenfield sites. Most of the new private homes were in small scale estates on reclaimed land or land released by the MoD.

Space constraints, coupled with high levels of demand, meant that builders sought to pack as many houses into as small a space as possible, as long as the result did not resemble the city's signature prewar working-class terraces. Anglo-Scandinavian maisonettes were the dominant form in Old Portsmouth. The site of the former Duchess of Kent and Victoria Barracks, Pembroke Park, was developed as a series of culs-de sac with 3-storey townhouses with integral garages. Basic 3- and 4 -storey blocks of flats were built on the filled-in Glory Hole in Eastney, next to new no-frills naval ratings accommodations. In Milton, small leafy estates with curvilinear streets feeding short loops and culs-de sac were lined with modest two-storey family houses with front driveways and small rear gardens. The redevelopment of the Hilsea Artillery Barracks at Gatcombe Park followed a similar template, with the addition of 4- and 6-storey redbrick blocks of flats at the western entrance to the estate.

Beyond Portsea Island, developers were busy fulfilling the predictions of the South-East Study. Accretions of small private housing estates around Gosport, Fareham, Portchester, Havant, Emsworth, Purbrook and Waterlooville, on Hayling Island, and in ribbon developments between all of them created the kind of sprawl that Modernist planners were unable to control. By the late 1970s Fareham's population was nudging 90,000, almost double its postwar population. Havant and Hayling Island together had a postwar population of less than 40,000 after the war; by the late 1970s it stood at 112,000.

Maisonettes, Old Portsmouth. Replacements for bombed-out housing on High Street, they were a harbinger of the gentrification of Old Portsmouth.

Gatcombe Park, Hilsea. Private housing built in the early 1970s on the site of the former former Royal Artillery Barracks.

Naval housing, Eastney. Married quarters for naval ratings, built in the mid-1960s on the landfill of the Glory Hole.

Preservation, Conservation, and Conversion

In the early 1970s more than 10 percent of Portsmouth's homes still lacked an inside lavatory. Meanwhile it had become clear that many otherwise sound buildings – and some symbolically important buildings – had been demolished as a result of urban renewal programmes. The Ronan Point disaster had eroded confidence in high-rise building generally and system-built towers in particular. A general sense of public opposition took root across the country in response to the ambitious plans of some developers and the evangelistic Modernism of city planners and architects. As a result the conventional wisdom with regard to urban policy shifted toward the rehabilitation of existing housing stock through improvement grants. It saved Portsmouth's defining townscape of terraced houses and their stock of affordable housing and gave many home owners confidence in investing in a much-needed facelift. But it also has to be acknowledged that rehabilitation and improvement also left the same townscape vulnerable to an individualism that was not always well-judged in terms of quality or aesthetics, eroding the symmetry and consistency of individual streets with a great variety of claddings, additions, and embellishments. It made for a cluttered townscape that was further degraded as the same streets became permanently clogged with on-street parking as a consequence of a sharp increase in car ownership.

A parallel trend saw the conversion rather than demolition of older buildings to new uses as shifting patterns of social and consumer behaviour displaced old ones and the needs and priorities of businesses and public institutions changed. Declining church attendance led to churches being converted to flats or cafes. As more people stayed home to watch television, cinemas were converted to bingo clubs, health clubs, and meeting halls for minority religions, and pubs were converted to flats, shops, and offices. Nazareth House convent, St Andrew's church, Eastney, Telephone House,

Southsea, and the former workhouse in Milton were among those converted to housing. Gatcombe House, Hilsea, became the headquarters of a building and engineering firm.

Public concern over threats to the distinctive character and sense of place of many localitiesthrough redevelopment and modernization led to the Civic Amenities Act of 1967. This allowed local councils to create Conservation Areas (CAs) and award grants for the repair of listed buildings. The Housing Act of 1969 enabled local councils to award matching restoration grants to homeowners. Several CAs were immediately established in Portsmouth, effectively protecting the remaining Georgian, Victorian, and Edwardian fabric of most of Old Portsmouth, the fragment of Mile End that includes Charles Dickens' birthplace, and Owen's Southsea and the entire seafront, including the Common.

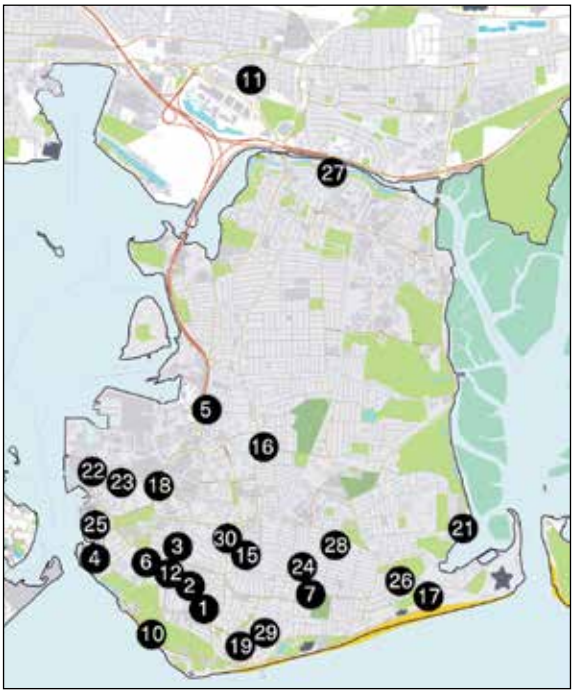
While conservation protected the city's most valued fabric, it also fostered gentrification

Eventually, a total of 30 CAs were designated – a surprisingly large number, perhaps, for a city 'hardly notable' for civilian architecture,[20] though several of them cover only one or two streets or even the area around just one or two buildings. These include the medieval church and manor house in Old Wymering; St Mary's churchyard; St Andrew's church, Eastney; Rochester Road (for its cast-iron Victorian entrance porches), Essex Road (a classic Edwardian residential street); and Highland Terrace (a typical mid-Victorian terrace). Most of the rest of the city's CAs adjoin the original anchors in Old Portsmouth and Southsea, together covering a crescent of surviving urban fabric extending between three hundred yards and two-thirds of a mile inland from the southwestern shoreline of Portsea Island.

While this conservation protected much of the city's most valued fabric it also succeeded in fostering a new phenomenon: gentrification – an influx of more affluent households seeking less-expensive housing in districts with 'character'. Typically, incoming households are dominated by young professionals such as teachers, lawyers, designers, artists, and architects. 'Pioneer' gentrifiers buy old properties and fix them up, often using sweat equity – their own, do-it-yourself labour, rather than contracted labour – for renovations and improvements. Their arrival pushes up rents and house prices and therefore generates increased property tax revenues for the city. But it also displaces less affluent households and can hasten the closure of local pubs and shops specializing in inexpensive goods and produce.

[20] Pevsner, N. and D. Lloyd, *The Buildings of England. Hampshire and the Isle of Wight*. London: Yale University Press, 2002 p. 391.

Designated Conservation Areas in Portsmouth



1 Stanley Street

2 Owen's Southsea

4 Old Portsmouth

3 King Street

5 Mile End

6 The Terraces

7 Highland Terrace

10 Seafront area

11 Old Wymering

12 Castle Road

15 Campbell Road

16 St Mary's

17 Eastney Barracks

18 Guildhall area & Victoria Park

19 East Southsea

21 Milton Locks

22 Naval Base & St George's Square

23 Portsea

24 Rochester Road

25 Gunwharf

26 St Andrew's

27 Hilsea Lines

28 Essex Road

29 Craneswater & Eastern Parade

30 St Andrews & St Davids Roads

Congestion. With its urban fabric dominated by high-density terracing, on-street parking is an ever-present problem, as here in Agincourt Road, Buckland.

Heritage

Meanwhile, the conservation movement brought an unexpected development in terms of the city's struggling economy. Some elements of the city's CAs were clearly of national as well as local significance: Southsea Castle, the Round Tower, and Square Tower, for example – valuable assets in Britain's emerging heritage industry. The city council had secured ownership of many of the remaining fortifications in Old Portsmouth in 1958. 'Then, two years later, the Square Tower and Southsea Castle were released by the Ministry of Defence and the city thus found itself owner and user of nearly all the surviving historic military defences on Portsea Island'.[21] The tourist potential of these sites – especially in combination with the attraction of HMS *Victory* in the Naval Base – was clear. As cities everywhere became more sensitive to the importance of branding themselves in an increasingly post-industrial economy, Portsmouth's comparative advantage was in its naval and military heritage. While other cities competed for visitors and investment with spectacular architecture, festival marketplaces, conference centres, and major sports and entertainment complexes, Portsmouth had a distinctive sense of place with flagship cultural sites that could be branded and commodified, along with unparalleled potential for waterfront redevelopment.

Southsea's lack of space for the creation of typical British seaside attractions – holiday camps, amusement parks, and camping and caravan parks – turned out to be an advantage, while its prewar development meant a range of accommodation was already available for a new set of visitors. The City Council abandoned the marketing of Southsea as a traditional seaside resort and began to promote the entire city in terms of its heritage buildings and fortifications. Southsea Castle was tidied up, renovated, and opened with its

[21] Fox, N., 'Leisure and Culture'. In Stapleton, B. and J. Thomas (eds), *The Portsmouth Region*. London: Alan Sutton, 1989, p. 202.

own museum in 1967. Charles Dickens' birthplace was restored and opened as a period house two years later. The Beam Engine House at Eastney pumping station was renovated and opened to the public, part of the old Clarence Barracks was converted to a large central City Museum and Art Gallery, and two of the forts on Portsdown Hill, Fort Widley and Fort Purbrook, were purchased by the city and restored. In addition, there was the potential of a whole array of other assets, including the Solent forts, Eastney Barracks, the Royal Navy Submarine museum in Gosport, the former armaments depot at Priddy's Hard, the torpedo and anti-submarine complex at the shore establishment of HMS *Vernon*, the newly-salvaged *Mary Rose*, and the city's association with D-Day. The continental ferry terminal provided a new stream of potential visitors to these heritage-based attractions, en route to or from France and Spain. In the neoliberal era that was to follow, they were, collectively, the principal engine for regeneration.

HMS *Victory*. The cornerstone for the development of a heritage industry.


Emirates SPINNAKER TOWER
emirates.com

Regeneration 1980- 6

Between the mid-1970s and the mid-1980s the UK endured an awkward transition from an industrial to a post-industrial economy. Lack of competitiveness in a rapidly globalizing economy, labour unrest, and price inflation brought an abrupt end to the boom years of the 1960s. The fortunes and composition of Portsmouth's own economy reflected this national context but, as in previous eras, what happened in Portsmouth was also strongly influenced by Admiralty policy and Dockyard activity. The cornerstone of the city's economy had already been adversely affected by the country's transition from a colonial to a post-colonial power and by weapons technologies – missiles, nuclear warheads and nuclear submarines – which meant that the size of the navy could be dramatically reduced without a reduction in its offensive capabilities. In 1981 the Conservative government announced plans to close HMS *Vernon* along with the Fraser gunnery range in Eastney and the barracks at HMS *Phoenix* in Hilsea, and to downgrade the Dockyard, reducing the workforce from 7,200 to 1,200. The following year saw brief revival of Dockyard activity – and of the city's self-esteem – when Argentina's impending invasion of the Falkland Islands required the preparation of a task force headed by the aircraft carriers *Hermes* and *Invincible*. But by 1984 the Naval Dockyard had been downgraded and re-categorized as a Fleet Maintenance and Repair Base, the workforce already reduced to 2,800. *Vernon* was officially closed two years later, along with *Phoenix* and the Fraser gunnery range in Eastney. Five years after that, the Royal Marines vacated Eastney Barracks.

By 1984 the Dockyard had been downgraded to a Fleet Maintenance and Repair Base

The effects of these changes on Portsmouth were compounded by a series of externally-driven events. The quadrupling of the price of crude oil in 1973 by the Organization of Petroleum Exporting Countries (OPEC) had triggered a global recession. Manufacturing firms sought to cope by moving offshore, to countries with cheap labour. In Britain the mid-to-late 1970s were marked by high inflation, low growth and pressure on public spending. Inevitably, the quality of public services and physical infrastructures deteriorated while increasing numbers of households found themselves moored in run-down neighbourhoods with low pay, high rates of poverty, unemployment, unfit dwellings, landlord repossessions, overcrowding and households in temporary accommodation. In Portsmouth, overall unemployment ran at 10 percent or more, with pockets of 50-75 percent in Landport. The Charles Dickens electoral ward, which covers Portsea and much of Somerstown and Buckland as well as Landport, consistently fell in the worst-off 10 percent on the Government's national Deprivation Index.

(opposite) **Spinnaker Tower.**

Vollers corset company, Burrfields. Founded in 1899, Vollers is the only remaining representative of the city's corset and staymaking industry that at one point employed almost 3,000.

Fraser Range, Eastney. One of the few remaining sites available for development on Portsea Island, the former Royal Navy gunnery school has been sold for residential development.

About Turn: Thatcherism

The idea that cities could be successfully planned and managed had become untenable

It was in this context that the postwar consensus that had given birth to the Welfare State was eclipsed by a new politics with an ideological emphasis on competition and self-reliance. The Welfare State was increasingly portrayed as creating a 'dependency culture' while the fundamental concept of the public good was disavowed. Government came to be portrayed as a problem rather than a solution: inefficient, bloated with bureaucracy, prone to over-regulation that stifles economic development, and committed to social and environmental policies that are an impediment to competitiveness. The 'Winter of Discontent' in 1978-79 was a key turning point. A rash of strikes paved the way for a Conservative election victory, led by Margaret Thatcher. Markets were henceforth to be the preferred regulators and keepers of the social order; the voluntary sector and self-reliant individualism could make up any shortfall in social well-being and the quality of urban life. The Thatcher government regarded policies designed to redistribute resources to disadvantaged areas or individuals as necessitating excessive taxation of the wealthy, thereby discouraging entrepreneurial leadership, reducing investment capital, and undermining productivity. The idea that cities could be successfully planned and managed had become untenable. Paving the way for the new order involved the deregulation of finance and industry, the introduction of curbs on the power and influence of trades unions, the privatization of government services and utilities, and cutbacks in redistributive welfare programmes.

With the capacity of central government agencies radically curtailed, municipal authorities were forced to become increasingly entrepreneurial in

pursuit of jobs and revenues. Social and environmental issues were sidelined as cities competed to provide a 'good business climate', aggressively encouraging inward investment, facilitating the property-led regeneration and gentrification of inner-city districts, subsidising 'flagship projects' and undertaking place-marketing campaigns aimed at affluent tourists and potential investors. Urban planning degenerated into a series of disconnected public-private initiatives, with the public sector always the junior partner, smoothing the rough spots and branding, rather than shaping, real change.

Sink Estates

Council housing, the most visible legacy of the Welfare State, was an early casualty of the ideological shift. In 1980 the Conservative government revoked the requirement for council housing to meet Parker Morris standards and introduced the right of council tenants to buy their homes at a substantial discount. Under the provisions of the 1980 Housing Act, local authorities were not allowed to use the proceeds from council-house sales to build or acquire new homes. Instead they were obliged to use the proceeds from the sale of council houses towards their operating budgets.

Tower blocks became the tombstones of the Welfare State

This effectively ended local authorities' capacity to provide affordable housing. Good intentions slowly fell apart under the weight of poverty, unemployment, and the central government's restrictive policies. Tower blocks had become the tombstones of the Welfare State. The supply of council housing fell behind demand, resulting in long waiting lists (it had reached seven years, in Portsmouth, in 2017). The right-to-buy legislation did have a stabilizing and upgrading effect in districts with a high proportion of desirable properties, such as the interwar cottage estates in Wymering.

Other estates, though, sank into disrepair and disrepute. Built during the golden age of postwar town planning, parts of Somerstown and Paulsgrove had become dispiriting, grim and forbidding. Without continued investment in maintenance or management they became stigmatized as 'sink' estates, characterized by high levels of economic and social deprivation and with shadow-effect landscapes of unkempt public spaces, discount stores, payday lenders, charity shops, and derelict sites. Not surprisingly, properties in these estates were unattractive propositions for sitting tenants to purchase. Meanwhile, a significant proportion of the council homes that were sold to sitting tenants under the right-to-buy policy ended up being sold on to buy-to-let investors and letting companies. By 2017, 43 percent of the leaseholds sold to council tenants in Portsmouth under right-to-buy legislation had ended up being sub-let, often at exorbitant rents.

Regeneration

Eventually, the number of problem estates around the country led to an adjustment in policy. Public-private partnerships would replace troublesome council estates with a 'social mix' of tenants that would include a critical mass of better-off households in new or renovated housing. The Conservative government established a Private Finance Initiative in 1992 to draw on private sector capacity in order to deliver public sector infrastructure and services. The initiative was expanded considerably by the New Labour government and rebranded in 1997 as the Public Private Partnership (PPP) as a means of kick-starting an 'urban renaissance'. The common strategy has been for developers to deliver an agreed number homes, including a specified number of 'affordable' homes, cross-subsidizing them by constructing more desirable apartments.

The regeneration of Somerstown is the largest of such projects in Portsmouth. It has involved the demolition of about 600 homes, the construction of more than 500 homes of mixed tenure, the refurbishment of many of the existing housing units, the landscaping and reconfiguration of the physical layout of the area, including a network of public open spaces, and and improvements to security and estate management. The centrepiece of Somerstown's regeneration is a new community hub. Its tubular structure stretches across Winston Churchill Avenue (that had cut Somerstown in two in the 1960s) and houses a community centre, youth centre, dance studios, sports hall, health centre, cafe and housing offices.

The Hub, Somerstown. Opened in 2014, the community centre spans Winston Churchill Avenue in an attempt to rejoin the two halves of the district.

Mountbatten Centre, Tipner. The city's main sports centre opened in 1983, providing a full sized running track, squash and tennis courts, all weather sports pitches, bowling greens, a gymnastics centre and an Olympic sized swimming pool.

Jamieson Terrace, Paulsgrove. Eco-friendly, energy efficient social housing built in 2004.

Ark Royal House, Somerstown. Part of the area redevelopment plan, with Citizens' Advice Bureau offices at street level and flats above.

Heritage Industry

Portsmouth's legacy of Ministry of Defence land was another target for regeneration. The widely-proclaimed examples of the property-led regeneration of 'brownfield' (i.e. previously developed) waterfront sites in Bilbao, Baltimore's Inner Harbor, and London's Docklands demonstrated the potential of regeneration projects to anchor broader efforts at urban revitalization and rebranding. Portsmouth city council had already established a Portsmouth Area Heritage Advisory Committee in 1979 in conjunction with the Ministry of Defence and neighbouring municipalities. Portsmouth not only had extensive brownfield waterfront sites; they were also part of the city's important maritime infrastructure and some of them contained buildings of significant historical interest.

Already rich in military and maritime assets – from Portchester Castle, Southsea Castle, de Gomme's fortifications, the Dockyard's Georgian buildings, and HMS *Victory* to the Victorian barracks and Fort Cumberland – the city acquired more and set about capitalizing on them all. In a spectacular

The *Mary Rose* exhibition and the *Victory*. Two of the leading attractions of the Naval Heritage Area that has effectively become a maritime theme park.

HMS *Warrior*, The Hard. Restored in 1969, *Warrior* returned to her home port of Portsmouth in 1987.

demonstration of marine archaeology the *Mary Rose*, Henry VIII's warship sunk in 1545, had been found off Southsea Castle in 1971. Between 1978 and 1981 she was excavated by divers, then raised from the Solent. She was taken to the Naval Base and installed near the *Victory*, where visitors were able to see her restoration in progress. Another new attraction was the D-Day Museum, opened in 1984 on Clarence Parade behind Southsea Castle. The centrepiece of the Museum is a 272-foot long Overlord Embroidery illustrating the Normandy landings of 1944 – a deliberate parallel to the Bayeaux Tapestry that illustrates the invasion of Britain by William of Normandy in 1066.

HMS *M.33*, Naval Heritage Area. A 'Monitor' with a shallow draft, allowing her to get close-in to shore and fire at targets on land, she is the sole remaining British veteran of the 1915 Gallipoli Campaign.

In 1985 part of the historic core of Portsmouth Dockyard was declared a Heritage Area and leased to the newly-created Naval Base Property Trust. This paved the way for the restoration of many of its buildings, including the conversion of Storehouses 10 and 11 for the Royal Naval Museum, the restoration of Boathouse 5 for the Mary Rose Museum, the conversion of Boathouse 7 for a cafe and gift shop, and the conversion of the iron-framed Boathouse 6 for 'Action Stations', a themed, interactive exhibit of modern naval technology. The Portsmouth Naval Heritage Trust was established to oversee the operation of the various attractions. Conveniently, Brickwood's nearby Portsea Brewery had closed in 1983, making land available for use as a car park for the Dockyard Heritage Area.

Meanwhile, several surviving Royal Naval vessels were acquired. In 1983 HMS *Holland I*, the first submarine commissioned by the Royal Navy, was brought to the Submarine Museum in Gosport, having been salvaged off Eddystone Lighthouse. HMS *M.33*, a veteran of the Dardanelles Campaign of 1915-1916, was bought by Hampshire County Council in 1990, installed in No. 1 Dry Dock in 1997 and eventually opened to the public in 2016 after extensive restoration. The star acquisition, though, was HMS *Warrior*, the Royal Navy`s first ironclad warship. Commissioned in Portsmouth in 1861, she had ended up as an oil fuel hulk in Milford Haven. Restored in Hartlepool, she was returned to Portsmouth in 1987, moored near the main entrance of the dockyard alongside a new jetty funded by the city council a cost of £1.3 million.

Places are increasingly being reinterpreted, reimagined, packaged, themed, and marketed

In the early 1990s the city established a joint economic development and tourism department, by which time there was widespread agreement on the development of the Portsmouth area as a centre for tourism based on themes of maritime and military heritage. This strategy was part of a world-wide trend. The experience of spectacular and distinctive places, physical settings, and landscapes had become an important element of consumer culture. Globalization had prompted cities in many parts of the world to become much more conscious of the ways in which they are perceived by tourists, businesses, media firms, and consumers. As a result, places were increasingly being reinterpreted, re-imagined, designed, packaged, themed, and marketed. Seeking to be competitive within the global economy, many places have sponsored extensive makeovers of themselves, including the creation of pedestrian plazas, waterfront developments, cosmopolitan cultural facilities, festivals, and sports and media events. The re-creation and refurbishment of historic districts and settings had, by the early 1990s, become so widespread that they have become a mainstay of a 'heritage industry'.

Gunwharf Quays. Portsmouth's waterfront regeneration scheme includes 90 outlet stores and 30 restaurants, pubs and cafes, along with a multi-screen cinema, bowling alley, art gallery, casino, hotel, and nightclub.

Gunwharf Quays. The 28-storey No 1 Gunwharf Quays, also known as the 'Lipstick Building', was completed in 2008. The canal is the only surviving remnant of the Mill Pond.

Portsmouth's first move in this context, in 1993, was the purchase of the Gunwharf site and the creation of a pro-growth coalition, the Portsmouth and South East Hampshire Partnership. The aim was to re-brand the city by developing a maritime shopping centre with luxury housing and leisure facilities as the commercial anchor for an international heritage economy. There were plenty of examples of successful waterfront regeneration to draw from, including Salford Docks, the new financial district in the Dublin docklands, the Kop van Zuid in Rotterdam, the River District in Portland, Oregon, Hamburg's HafenCity, Copenhagen's Ørestaden project, Oslo's Bjørvika redevelopment, and the Victoria and Alfred Docks in Cape Town. Common denominators

The Crescent, Gunwharf Quays.

The Roundhouse and No. 1 Gunwharf Quays.

among such projects are new-build ensembles of office buildings, retail space, condominium towers, cultural amenities, renovated heritage buildings, and themed landscaping and street furniture. They are all the product of powerful regeneration 'machines' – pro-growth coalitions and public-private partnerships involving governments working with private finance, property, and construction interests to facilitate property-led development on undervalued brownfield settings.

The centrepiece of Portsmouth's project was the iconic Spinnaker Tower

The Portsmouth and South East Hampshire Partnership drew especially on the experience of the regenerated Victoria and Alfred Docks in Cape Town. After a series of failed attempts to secure investment, the partnership was successful in 1995 in securing £40 million from the Millennium Commission, which had invited bids for 'landmark' projects to celebrate the year 2000. The centrepiece of Portsmouth's project was the iconic Spinnaker Tower, a 558 ft observation tower whose sail-like form was designed to echo the maritime branding of the city. Private consortia were invited to compete for the right to own and redevelop the surrounding Gunwharf site. The property developers Berkeley were awarded the contract in 1998. Their mixed-use development, Gunwharf Quays, had to overcome resistance from a conservation alliance led locally by the Portsmouth Society and backed by English Heritage and the Royal Fine Arts Commission. Creating the mixed-use complex required filling in Mill Pond Creek and the demolition of most of HMS *Vernon's* buildings, including the boat sheds, the Warrior Block and Donegal Lodge. In their place are a series of unexceptional condominium buildings, dominated by the 29-storey No. 1 building, together with almost 100 designer shopping outlets, 25 bars and restaurants, a 14-screen cinema, a bowling alley, nightclubs, a contemporary art gallery, a 120-bed hotel and a two-storey car park. A few original buildings remain, along with renovated dockside

Hotwalls Studios, Old Portsmouth. The ARTches project converted the vacant arches of Point Battery into studio spaces in 2014, inspired by the Sunday art sales that had taken place in the arches since the late 1950s.

Transport Interchange, The Hard. The key element in the Council's plan for the regeneration of The Hard links bus and coach services with the Gosport ferry and Portsmouth Harbour train station.

cranes, ships' figureheads, buoys and so on, lending a degree of authenticity to the maritime theme. The administration block, a grade-II Listed building, was converted to a pub. The Vulcan storehouse building, also listed grade-II, was converted to luxury apartments. In 2006 the Gunwharf Quays project earned Berkeley the Project of the Year and Regeneration Award from the Royal Institution of Chartered Surveyors.

Across the harbour to the west the Portsmouth and South East Hampshire Partnership's regeneration efforts have focused on Priddy's Hard (the Royal Navy's former armaments depot) and Royal Clarence Yard (former naval victualling yards), both of which include luxury apartments in converted Georgian buildings. A feature of the Priddy's Hard development is 'Explosion!', a museum of naval warfare housed in a group of listed buildings centred around the original powder magazine of 1777. On the eastern side of the harbour meanwhile, the Long Curtain and moat have been cleaned up and linked by a pedestrian Millennium Walk to both the Gunwharf development and de Gomme's fortifications. The arched spaces beneath de Gomme's ramparts, formerly part of Point Barracks, have been converted to Hotwalls Studios housing 13 creative studios and a café. Altogether, these regeneration projects have created more than 2,500 jobs and attracted more than £300m of investment to the area. The shops and restaurants at Gunwharf Quays now attract over 115,000 visitors per week. Together with the Naval Heritage Area and an expanded series of car and passenger ferry services from Portsmouth Harbour to France and Spain, they have given critical mass to Portsmouth's attractions as a major UK tourist destination.

The Pyramids, Southsea. The Pyramids gave Southsea the sort of all-weather leisure development that had already been undertaken by most seaside resorts.

The commercial success of the harbour regeneration has prompted other improvement schemes. The Portsmouth Gateway Project resulted in the 'Sails of the South' mast on the Tipner Bridge entrance to the city on the M275. Hilsea Lines have been cleaned up and made accessible as a green corridor with nature trails among the historic ramparts. At the other end of the city a new transport interchange has initiated the regeneration of The Hard, while a new Isle of Wight ferry terminal and a new headquarters and visitors' centre for Landrover Ben Ainslie Racing have completed the redevelopment of the Camber. Along the seafront, the council entered into a public-private partnership to create an indoor leisure centre on the seafront, The Pyramids, to complement the heritage attractions and serve Southsea's traditional tourist market.

The Sails of the South, Tipner. The only significant legacy of the millennium Portsmouth Gateway Project.

Land Rover Ben Ainslie Racing Building, The Camber. The building provides the facilities necessary to support a bid to host the America's Cup Challenge in 2021.

Commercial and Institutional Landscapes

Buoyed up by the widespread availability of credit cards, the UK economy picked up significantly in the 1990s. In Portsmouth, as elsewhere, this translated into retail parks, superstores, hypermarkets, discount megastores, shopping malls, pedestrianized shopping precincts, multiplex cinema/entertainment complexes, fast-food franchises, and hotel chains. Portsmouth acquired Holiday Inn, Travel Inn, Hilton, and Marriott hotels; Cascades Shopping Mall on Commercial Road and the Bridge Centre on Fratton Road; Ocean Retail Park at Burrfields Road and the Pompey Centre adjacent to Fratton Park; and Palmerston Road and Commercial Road were pedestrianized. As independent shops were replaced by chain stores and franchised cafes and restaurants, Portsmouth's commercial landscape lost much of its remaining distinctiveness, leaving cloned streetscapes that could easily be mistaken for dozens of bland shopping streets around the country. Albert Road acquired something of a hipster vibe while Castle Road shops developed an air of genteel eccentricity.

Meanwhile, the expansion of car ownership and the widespread availability of refrigerators and freezers meant that growing numbers of families no longer needed to shop on a daily basis, travelling instead on a weekly basis to new superstores and malls. Edwardian and inter-war shopping parades, with limited parking and shallow retail units with inadequate rear servicing and storage facilities, became increasingly redundant. Many slipped into a spiral of decline, their traditional retailers replaced by charity shops, betting shops, take-aways and vacant units.

On the positive side, Portsmouth's economy was boosted by the growth of Portsmouth Polytechnic and its transition to university status in 1992. As the student population grew from just a few thousand to more than 22,000, the

Albert Road, Southsea. Portsmouth's hipster centre and specialist commercial area has a range of small independent shops, tattoo parlours, galleries, restaurants, pubs and bars.
Top:eastern section; bottom, western section.

university acquired and converted a variety of buildings around the Guildhall precinct and built new facilities to accommodate teaching, research, student housing and back-office functions. The district to the south of the Guildhall, stretching west toward Portsea along Park Road and south toward Southsea along Hampshire Terrace, is now dominated by the university and officially recognized as the University Quarter. Among the buildings acquired and converted for use by the University are the old Portsea Free School (see p. 88), the Milldam Barracks (p. 38), and the Park Building (p. 96). Among the more notable new buildings are residence halls, a library building, and new science, business, environmental design, and art and media buildings. The growth of the university resulted in a sharp increase in demand for student accommodation – an acute issue in a city with the highest density of population outside central London. It has provided an opportunity for speculative developers to erect student hostels. Clustered around the University Quarter, the common denominator is their scale: 10 to 25-storeys. Catherine House,

next to Victoria Park, is a conversion of the 15-storey Zurich office building with an elegant curvilinear extension. The 25-storey Greetham Street hostel, on the other hand, built by Unite, the biggest student housing provider in the country, is an inelegant tower: nominated for the Carbuncle Cup in 2017 as the ugliest new building in the UK.

Sainsbury's supermarket, Clarence Street. The new building incorporates the facade of the Portsea Institution, formerly the Bell School (see page 51).
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Pall Europe offices, Cosham. One of Portsmouth's longstanding transnational corporate employers moved to the former Raymarine building in the Harbourgate Business Park in 2011.

Richmond Building, University of Portsmouth. The Business School building was opened in 2005.

University of Portsmouth Library Extension. Opened in 2007.

Portland Building, University of Portsmouth.
Designed by Colin Stansfield-Smith in the 1990s for the School of Architecture.

Unite Students Building, Greetham Street.
Designed by Cooley Architects for Unite, the biggest student housing provider in the country. Completed in 2016, just in time to make the shortlist for the 2017 Carbuncle Cup, awarded by *Building Design* magazine for Britain's ugliest new building.

New Residential Landscapes

Scarcity of land continued to be a challenge for new residential development, but the buoyant economy – at least until the financial crisis of 2008 – did result in a fair amount of new housing. In Old Portsmouth, it was mainly in the form of expensive apartment buildings. More modest developments on reclaimed land at Eastney Lake and the Glory Hole were extended, and high-density cul-de-sac developments were inserted on the site of Green Farm, Hilsea, on allotment gardens at Tipner, and at Anchorage Park on part of the former airport. The reclaimed inter-tidal mudflats and landfill between Horsea Island and Cosham were developed in more ambitious fashion as Port Solent, with waterside gated housing and apartments along with modestly upscale retail outlets, bars and restaurants clustered around a marina. The architect was Hedley Greentree, a key member of the Portsmouth and South East Hampshire Partnership responsible for the city's regeneration strategy and the lead architect for the Spinnaker Tower, Gunwharf Quays, the Land Rover BAR headquarters at the Camber and the Sails of the South as well as a number of Modernist private residences in the Portsmouth area.

Port Solent. Port Solent was developed on reclaimed land at the top of Portsmouth Harbour during the late 1980s. Grouped around the marina are gated housing, retail outlets, bars and restaurants, and a multiplex cinema.

(opposite, top) **James Watson Hall, Guildhall Walk.** Purpose-built student accommodation on a prime city centre site. Speculatively-built student accommodation is not officially classified as housing, leaving developers immune from many of the codes that govern residential dwellings, from space standards to daylight and acoustics, and from the requirement to provide any contribution towards affordable housing.

(bottom) **Catherine House, Stanhope Road.** More purpose-built student accommodation on a prime city-centre site.

Residential Infill. Portsea Island's few remaining greenfield and brownfield sites began to be filled in during the 1990s.

Top: **Milebush Road.** Infill on the former estate attached to St James hospital, Milton.

Middle: **Horse Sands Close, Eastney**. Built on reclaimed mudflats along the edge of Eastney Lake, Langstone Harbour.

Bottom: **Anchorage Park, Hilsea.** Part of an extensive high-density private estate built on the site of the old airport.

(opposite, both photos) **Admiralty Quarter, Queen Street.** A gated community with a landmark 22-storey tower and fifteen other buildings built around an enclosed podium garden that sits above a private car park.

Inevitably, regeneration has prompted a significant degree of gentrification. After several decades of benign neglect, Owen's Southsea has become much sought after, and many properties have been repaired and refurbished. Old Portsmouth is now entirely gentrified, and even Portsea is well on the way to gentrification, seeded by the new-build Admiralty Quarter. Gentrification has also been stimulated by the lifting of restrictions that previously prevented the conversion of industrial and commercial space into residential use. As in many other cities, old factories, warehouses and decommissioned pubs, schools, hospitals, asylums and orphanages have also made attractive targets for conversion to residential use. In Portsmouth, New Road School, one of the first the first Board Schools in the city, joined Eastney Barracks, the Beck Street warehouse, the Coronation House office building on Kings Terrace, the Pendragon Hotel on Clarence Parade, Nazareth House convent on Lawrence Road, St Andrew's church, Eastney, Telephone House, Southsea, and the former workhouse in Kingston in being converted to flats. St James Hospital was put on the market in 2018 as a 'landmark development opportunity'. The former naval hospital at Haslar is now redeveloped as a 'waterfront village'; while the Air Balloon, the Gravediggers and the Barleycorn were among pubs converted to housing; and several of the shops and small businesses on Great Southsea Street have been converted to residences.

All in all, much of Portsmouth is no longer what it might seem at first glance. The city's built fabric nevertheless remains as a visible legacy of its highly specialized role in national history and its unique physical setting. Portsmouth has been shaped as much by geography and the tides of war and peace as by national economic, social, and architectural history. Regeneration may have introduced cloned and gentrified landscapes that have erased some of the city's distinctiveness, but they in turn will be overlaid by the product of future cycles of economic development. Along with the rest of the city's fabric, they will be adapted or redeveloped. Meanwhile, the surviving legacy of pre-modern, Georgian, Victorian, Edwardian, and postwar building contains a rich array of powerful emotional and cultural symbols that continue to underpin the city's identity and sense of place

(opposite, top) **Mariners Court, Broad Street.**
New-build gentrification in Old Portsmouth.

(bottom) **Tudor Rose Court, Southsea.**
Specialised new-build gentrification: a retirement and assisted living development located on the former site of the Savoy Buildings on South Parade.

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Paul Knox grew up in Portsmouth and retains deep roots in the city. A Professor of Urban Studies, he has held teaching positions at the University of Dundee, the University of Stirling, Oklahoma University, the University of Wisconsin, Madison, and Virginia Tech.