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# ISLE OF GRAIN, HOO PENINSULA, KENT

## HISTORIC AREA ASSESSMENT

Joanna Smith



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## **SUMMARY**

The Isle of Grain lies at the east end of the Hoo Peninsula. Its landscape encompasses areas of marsh and farmland but much of the island has been affected by 20th century development, including the introduction of a visually dominant power station and container port. The historic settlement at Grain has undergone a similar degree of change. Until the mid 19th century marshland reclamation and farming shaped the character of the isolated and low-lying island. Thereafter, an increased military presence and the construction of a railway and pier began a process of change that industry has continued. The departure of the military and industrial retrenchment and redevelopment in the latter part of the 20th century has added further complexity to the built environment. This Historic Area Assessment provides an overview of the historical development and architectural character of the administrative parish, which is coterminous with the island. It forms a component of the larger Hoo Peninsula Historic Landscape Project.

## **CONTRIBUTORS**

The report was written by Joanna Smith. The character area maps were produced by Philip Sinton. The modern ground photographs were taken by Jonathan Clarke, Derek Kendall and Joanna Smith and the modern aerial photographs were by Damian Grady.

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## PREFACE

The Hoo Peninsula Historic Landscape Project was undertaken by English Heritage between 2009 and 2012. The project aims were to inform landscape change at a strategic level by providing an enhanced evidence base and a better-informed understanding of the area's rich historic character. To ensure a truly integrated project a number of different research and recording techniques at the disposal of English Heritage were deployed. These included aerial survey, analytical earthwork and buildings survey, historic landscape, seascape and routeway characterisation, farmstead characterisation and historic area assessment. An integrated narrative report drawing on this full range of work was produced in 2013 (Carpenter *et al*, 2013).

Historic area assessment was developed by English Heritage as one of a number of approaches to understanding the historic environment at area scale. Each assessment aims to explain how the past is encapsulated in today's landscape, to describe its character and to distinguish its more significant elements. Because resources, timescales and the nature of areas can vary three levels of assessment have been defined (English Heritage, 2010). For the Hoo Peninsula Historic Landscape Project it was decided to undertake historic area assessments of individual parishes at outline level - that is less-intensive survey and research to enable coverage of a wider area. The Hoo Peninsula, east of the ridge of high land at Higham, was assessed by parish. For each parish the key elements of its historic development were identified, its architectural interest and significance was evaluated and its landscape was subdivided into character areas.

The Hoo Peninsula outline historic area assessments were carried out within English Heritage by members of the Assessment Team South, Heritage Protection Department. Fieldwork was undertaken during a number of visits to the peninsula between 2010 and 2011. This consisted of external ground photography and site notes. A limited amount of research was undertaken in the local archives. Extensive use was made of historic maps, principally the tithe maps and various Ordnance Survey editions, along with on-line resources such as census data and historic newspapers, to produce the assessments. These were written in draft by the team members between 2011 and 2013.





*'...to walk in the shadow of Grain power station is to preview the end of the world. Behind the sea-wall lies a splendidly bleak expanse of marsh, littered with relics of industry and war. ...Less an imperial landscape than a redundant and forgotten one, Grain speaks of abandonment on a grand scale.'*



Figure 1 Location map showing the Isle of Grain ©Crown copyright and database right 2103. All rights reserved. Ordnance Survey Licence number 1000124900.

## INTRODUCTION

The parish of the Isle of Grain occupies the eastern extremity of Hoo Peninsula, separated by the Yantlet Creek from the adjoining parishes of Stoke and Allhallows (Fig. 1). The creek is spanned, at its narrow southern end, by the A228 roadway and the mineral railway, linking the island to the mainland. Marshes still occupy the northern part of the island while the southern marshlands have been largely transformed into an industrial, and in places post-industrial, landscape. Grain village lies on the island's eastern edge, overlooking the confluence of its bounding rivers, the Medway and the Thames.

Lying beyond the peninsula's ridge of higher ground, the island has an open landscape. Its geology is that of London clay and alluvium deposits. Two areas of settlement developed on slightly higher ground in the centre and east of the island, principally a hamlet called Wallend and the village of Grain. Both remained little more than a cluster of farmsteads until the end of the 19th century but have subsequently been transformed, Wallend by industrial development and Grain by residential expansion.

As elsewhere on Hoo, marshland grazing and arable farming predominated for centuries, shaping its landscape of fleets and ditches, counter walls and reclaimed pasture. Another traditional industry, salt making, continued on the Isle of Grain until at least the end of the 18th century. But historically the low-lying marshland has also proved vulnerable to flooding and encroachment by the river, despite the protection of sea walls.

The isolation of the island was increasingly undermined from the mid 19th century, as various areas acquired first a military, then a commercial and finally a strongly industrial character. Between 1855 and 1901 a succession of military structures, including a tower, fort and batteries, were built to the east and south of the village. In 1882 the Hundred of Hoo railway was extended onto the southern marshes, to serve a pier and associated ferry service, at the grandly named Port Victoria. This was followed in the 1920s by an oil refinery in the same vicinity. In the early decades of the 20th century additional military facilities were established, including an experimental seaplane station near the village and a firing range on the northern marshes. In the post-war years the scale of industrial developments escalated as two major installations were built on the southern marshes, swallowing up vast tracts of land. First was British Petroleum's Kent Oil Refinery, begun in 1950, followed by Grain Power Station, constructed between 1971 and 1982.

Some of these developments have proved to be transient. The fort and batteries were abandoned and extensively demolished in the 1960s, leaving an area of earthworks and enigmatic remains that form part of a riverside park. The Kent Oil Refinery was closed in 1981 and its site was cleared. But the power station and its prominent chimney continue to dominate. This landmark has been joined by the giant cranes of London Thamesport, a container terminal constructed on part of the oil refinery site in the late 1980s. Grain village, considerably enlarged in the post-war decades for the oil refinery workers, now has the character of an industrial settlement. While the least altered area of the island is the northern marshes, used since the 1970s as a demolition range by the Ministry of Defence.



## HISTORICAL DEVELOPMENT

### Settlement and topography

The name Grain (also spelt variously as Grean, Gryen, Grayne and Graine) is thought to have originally referred to a gravelly, sandy shore, a feature of the island that has long been lost to the river.<sup>2</sup> The history of settlement on the island remains little studied but there is some evidence of Saxon occupation.<sup>3</sup> As was usual higher ground became the focus of occupation, leading to the formation of two settlements in the central area of the island (Fig. 2). The easternmost of these was the village of St James Grain (now simply called Grain), named after the parish church whose earliest fabric dates to the 12th century. To the west was the hamlet of Upland or Wall End (now Wallend), both names presumably derived from its topography.<sup>4</sup>



Figure 2 Detail of the Isle of Grain from *A Map of the Hundreds of Hoo and Chatham and Gillingham, 1798*

Historically Grain lay within the Hundred of Gillingham rather than the Hundred of Hoo. The manor of Grain was held by the Archbishop of Canterbury until conveyed to Henry VIII. Edward IV then granted it to Sir George Brooke, Lord Cobham but it was forfeited to the crown during the reign of James I. Under Charles I it became part of the manor of Gillingham. The location of the manor house, if it ever existed, does not seem to have been recorded.

Another manor was Rose Court, owned by the de Cobham family until 1397 when it was given, along with other family property, for the upkeep of a new bridge at Rochester. A farm called Rose Court still survives to the north east of the village, but the present complex of buildings dates from the 1870s and may not occupy the original manorial site.<sup>5</sup> This property continues to be owned by the Rochester Bridge Trust. An estate at Wall End was held at an early period, by the same owners as the manor of Malmayns (or Malmains) in Stoke.<sup>6</sup>

The Yantlet Creek, which separates the island from the Hoo Peninsula, was once a navigable tidal channel between the Medway and the Thames but this seems to have ceased by the middle ages. The origins of Grain Bridge, which crosses the creek at its southern end, are obscure but a connection of 'the most remote antiquity' was claimed in 1824, when the Corporation of London attempted to reestablish a clear waterway.<sup>7</sup>

Surrounded by water, criss-crossed by natural water channels or fleets and manmade

dykes and ditches, Grain had a quintessential marsh landscape. The process of reclaiming the salt marshes for grazing land may have been started by the Romans and was still happening in the 18th century.<sup>8</sup> To protect the 'fresh' marshes from inundation, a succession of protective walls were constructed. From 1530 construction and maintenance of the sea walls on Grain was mainly the responsibility of the North and East Kent Sewer Commissions. From the 16th to the 18th century the Commission struggled to prevent incursions but the raising sea level and periods of bad weather meant regular flooding and a significant loss of land. The principal victim was the Rochester Bridge Trust, who lost some 600 acres of marshes on the north and east of the island.<sup>9</sup> Thereafter, improved construction, with higher walls of stone or ragstone pebbles instead of chalk blocks improved the protection.<sup>10</sup> This left an island of around 3100 acres, although Grain experienced floods in 1897 and 1953.

### **Agriculture and early industry**

Until the second half of the 19th century the marshland farming community on the Isle of Grain was isolated, even by the standards of the Hoo Peninsula. The farms were mainly located on the central upland; several in and around the village of Grain (St James Farm, Baytree Farm and Whitehouse Farm) and another group at Wallend (including Wallend Home Farm). More outlying were White Hall Farm, Perry's Farm, Rose Court Farm and Wilford's Farm. Some farms were located in the marshes, such as Cane Marsh Farm, which seems to have been reestablished as Red House Farm in the mid 19th century.<sup>11</sup> As elsewhere on Hoo, its farms were historically a mixture of arable, growing corn that could be transported to the Rochester and London markets from Grain Bridge, and marshland grazing. In the latter part of the 19th century the growing of seeds and potatoes began to predominate, following the model pioneered by Henry Pye elsewhere on the Peninsula. His son, Henry Pye junior, was farming on the island by 1903.<sup>12</sup> Market gardening and fruit growing also increased from the late 19th century although the open landscape left the orchards exposed to 'heavy winds ... adverse to the successful ripening of fruit'.<sup>13</sup> Change was also evident in the farmsteads of Grain during the second half of the 19th century as some, such as Baytree Farm, passed out of use, while others were rebuilt. By the 18th century, if not earlier, much of the farming was done by tenants for absent owners. As well the Rochester Bridge Trust, the Dean and Chapter of Rochester also owned land on the island (principally Cane Marsh Farm).<sup>14</sup> In the 1840s only two properties, White House Farm and Whitehall Farm, were farmed by their owners.<sup>15</sup>

Other activities on the island included fishing, occurring by at least the early 12th century, and salt making.<sup>16</sup> The early history of the salt industry on Grain is obscure but may have originated in the Roman period, as appears to have been the case in nearby Stoke saltings. By the 17th century a salt panning works was present on the south west of the island by the River Medway. The site was substantial, including pans, in which the salt was dried, a storehouse and wharf, a windmill and sluices and a 'good dwelling house', known as Saltpans House.<sup>17</sup> It was from here that Hogarth and his associates departed the island in 1732 and the works continued to function until the end of the 18th century.<sup>18</sup> Another salt works was operating beside Yantlet Creek in the 18th century, apparently established in 1744 by a Mr Mason, but had ceased by the end of the century (Fig. 3).<sup>19</sup>



Like much of the peninsula, Grain was often considered an unhealthy place because of the prevalence of malaria. As Edward Hasted observed in 1798, the island 'lies very flat and low; the greatest part of its consists of pasture and marshes, the vast tracts of the latter, in the neighbourhood of it, and the badness of the water, makes it as unwholesome as it is unpleasant; so that the inhabitants mostly consist of a few lookers or bailiffs, and of those who work at the salts works, and such like, who have not wherewithal to seek a residence elsewhere'.<sup>20</sup>



Figure 3 The old saltworks, Yantlett Creek and reclaimed marshland, OS map published 1870 © and database right Crown copyright and Landmark Information Group Ltd (All rights reserved 2013) Licence numbers 000394 and TP0024

By 1840 the population of the island consisted of around 250 people.<sup>21</sup> The road from Grain Bridge passed through Wall End and on to Grain village (Fig. 4), before petering out at the riverside. Both settlements were formed of a loose grouping of farmsteads and farm labourers' cottages. In addition, Grain contained the parish church, a poor house and a hostelry, a late-16th-century building known in the 18th and 19th century as The Cock Inn. The main street widened to encompass a pond and had a trackway running eastwards, seemingly referred to as the Green, now Green Lane, perhaps refer to an area of common land. A congregational chapel opened in 1826 on an existing roadway leading south from the village, thereafter known as Chapel Lane. This road also had four 'back-to-back' farm workers cottages.<sup>22</sup>



There were a number of isolated houses. One stood by Grain Bridge and another on the Medway riverside at Cockleshell Hard. In the 1860s this was being used by the Coastguard because Grain riverside, as elsewhere on the peninsula, was ideal smuggling territory.

Figure 4 Detail of Grain village, OS map published 1895 © and database right Crown copyright and Landmark Information Group Ltd (All rights reserved 2013) Licence numbers 000394 and TP0024

## A military landscape

Because the Isle of Grain occupies a strategic location in the river Medway and Thames Estuary consideration has periodically been given to its defence. Before the mid 19th century its fortifications were relatively modest, including earthen batteries constructed in the wake of the Dutch raid in 1667 and temporary measures such as floating batteries and a guardship anchored in the Medway in the late 18th century.<sup>23</sup> This situation began to change with the construction of Grain Tower in 1848-55, a variation of a Martello tower sited near the village on a tidal mud flat and accessed by a causeway. Between 1861 and 1868 a large fort was built to the east of village along with an auxiliary battery on Smithfield Marshes to the south. The fortification was intended to command both rivers, acting in conjunction with Slough Fort, at Allhallows, and Sheerness Fort. It was also able to accommodate over 260 military personnel although at times the numbers seem to have been lower.<sup>24</sup> The fort was provided with an artillery battery to the south on Smithfield Marshes in 1867-9. Rapid developments in military technology then required the construction of a further two batteries in the vicinity of Grain Fort. Wing Battery was built in 1895, followed by Grain Battery in 1900-1; both were low-profile facilities designed for faster-firing, less-conspicuous guns. In 1904 the original battery (originally Grain Battery but renamed Dummy Battery), was replanned (Fig. 5). The extensive complex at Grain now formed, along with the fortifications at Sheerness, the 'front line defence for the vitally important Thames and Medway estuaries'.<sup>25</sup> During both world wars the existing fortifications on Grain were modernized and additional facilities provided, including a battery at White Hall Farm (in operation in 1918 and in 1942-3) and anti-tank defences on the shoreline north of the Grain village in c.1940.<sup>26</sup>

In the early decades of the 20th century the range of military establishments on the island expanded and diversified. In 1900 the Admiralty built a new Coastguard Station on the eastern edge of the village.<sup>27</sup> This replaced a watch vessel, Roebuck, which had been moored near Elphinstone Point, in the south west of the island, until the flood



of 1897 (Fig. 6). It was in the vicinity of Elphinstone Point that the Admiralty established an oil storage facility in 1908, serving a naval fleet then in the process of converting from coal to oil, utilizing the deep-water access provided by the Medway.<sup>28</sup> In 1912 an area of marsh to the south of the

*Figure 5 Military establishments around Grain village, OS map published 1896 © and database right Crown copyright and Landmark Information Group Ltd (All rights reserved 2013) Licence numbers 000394 and TP0024*

village, near the Dummy Battery, was used for a Royal Naval Air Service seaplane base, one of the earliest naval air stations in the country.<sup>29</sup> Three years later an experimental aircraft depot was established nearby, near Port Victoria, and the two bases were known as Grain Air Station. These were substantial facilities employing around 800 officers and men, who were accommodated in a temporary settlement known as Bungalow Town adjacent to the village and in the Coastguards cottages. Grain Air Station was integrated into the Royal Air Force in 1918 and remained in operation until 1924, when the experimental depot was transferred to Felixstowe.

The other notable military establishment on Grain was a gunnery firing station, set up on the northern marshes by the Admiralty in 1917 for the testing of naval ordnance.<sup>30</sup> Land was purchased from the Rochester Bridge Trust in 1923 and a jetty was built on the Yantlet, along with other facilities.<sup>31</sup> Guns, transported from Woolwich Arsenal by barge and railway, were regularly fired across the marshes until the 1950s, despite the complaints of the local population.<sup>32</sup>

## Port Victoria

While the local promoters of the Hundred of Hoo railway seem to have been interested primarily in improving access to markets for their agricultural produce, the South Eastern Railway had different ambitions for the venture. Their intention was to create a rail and ferry port on the Isle of Grain to compete with the London Chatham and Dover Railway's venture at Queenborough, Isle of Sheppey.<sup>33</sup> The South Eastern chairman Sir Edward Watkins saw potential for Atlantic and continental traffic served by docks. 500 acres of marsh by the Medway were acquired, including the former salt works, and in 1882 the railway line was extended from Sharnel Street



Figure 6 Coastguard watch vessel, OS map published 1896 © and database right Crown copyright and Landmark Information Group Ltd (All rights reserved 2013) Licence numbers 000394 and TP0024

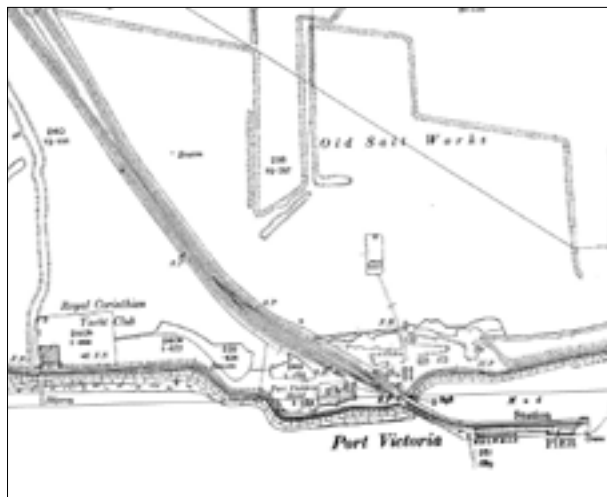


Figure 7 Port Victoria and the site of the old salt works, OS map published 1908 © and database right Crown copyright and Landmark Information Group Ltd (All rights reserved 2013) Licence numbers 000394 and TP0024

to Grain. A station and wooden pier were constructed, used for an interconnecting ferry service to Sheerness. The name of the new facility, Port Victoria, reflected the ambitions of its developers but its structures were modest. These included a small one-storey hotel, of timber construction, built on or near the site of now demolished Salt Pan House. The complex experienced some success, the pier was used by Queen Victoria to embark and disembark onto the royal yacht and the Royal Corinthian Yacht Club was persuaded to move its headquarters there in 1899 (Fig. 7). The clubhouse, a three-storey timber structure, provided with a double-height verandah and viewing balconies, had some pretensions to grandeur but Port Victoria never developed as hoped, remaining a 'few low buildings like the beginnings of a hasty settlement'.<sup>34</sup> In 1914 the clubhouse was requisitioned by the Royal Naval Air Service and the club relocated to Essex; two years later the pier was partially demolished.

### Settlement and Industry 1860-1950

From the mid 19th century change was increasing evident in Grain. Edged by expanding military facilities, the village gained a Vicarage in 1862, a National School in 1864 (enlarged 1890; now demolished) and a larger Congregational Chapel in 1895 (at which time the earlier chapel was converted to a Sunday school). In 1904-5 the parish church was restored and a short tower was added to the building. During the same period many of older cottages in the village were replaced and several terraces of new houses were built, including Doggett's Row, Willow Place and Lee's Cottages. In addition to agricultural labourers, these properties were occupied by workers employed by the military and in other local industries. In 1900 the Cock Inn was replaced on an adjacent site by a 'commodious' new building with the same name, described as 'fine accommodation for man, beast, or motor' (now demolished).<sup>35</sup> Its predecessor became the post office, which provided the village with its supplies along with another shop and two carriers.<sup>36</sup> From the mid 19th century onwards the village was periodically expanded by temporary camps providing accommodation for construction workers or military personnel but these left few permanent structures (Fig. 8).



Figure 8 Grain village, OS map published 1933 © and database right Crown copyright and Landmark Information Group Ltd (All rights reserved 2013) Licence numbers 000394 and TP0024

New kinds of industrial activity developed on the island during the 19th century, notably clay and gravel extraction. Grain lay at the eastern edge of the expanse of saltings that underwent intensive exploitation between the mid 19th and the early 20th century. Like Stoke and Hoo St Werburgh, the island was home to a community of clay diggers or 'muddies'. It is unclear when gravel and sand extraction on the island began but reference to Gravel Pit House in the 1851 census indicates that it was already underway by this date. In the early 20th century the activity increased, with gravel being removed from the Yantlet area and on land at Whitehall Farm.<sup>37</sup> At the latter site a wharf for loading barges was built in c.1906 and steam plant for washing and sorting installed.<sup>38</sup>

However, it was the oil industry that came to predominate in the 20th century. Storage of oil by the Admiralty had started in 1908. In the 1923 it was joined by private venture, when the Medway Oil and Storage Company (MOSCO) acquired 132 acres from the South Eastern Railway for a refinery.<sup>39</sup> Headed by an American, Charles Francis de Ganahl, until 1928, the company built a facility for storing, refining and marketing petrol products. This included a steel jetty at which tankers could moor as well as road and rail loading facilities (Fig. 9). The refinery closed in 1932 but the site continued to operate as a storage facility. Other oil companies were also attracted to Hoo; in 1931 Berry Wiggins established a refinery at Kingsnorth and by the 1940s another business, the Britannic Oil Storage Company, was in operation near the MOSCO site.<sup>40</sup>



Figure 9 Aerial view of the MOSCO site in 1925 taken by Aerofilms (EPW013211)

## Post-war industry: oil and electricity

In 1947 planning began for a major new oil refinery at Grain by the Anglo-Iranian Oil Company, part of the British Petroleum (BP) group. The proposals were for a large facility, part of a major programme of post-war refinery building in the United Kingdom prompted by the increasing demand for petroleum products. An area of marshland was purchased, including the MOSCO site and the remains of Port Victoria, which was subsequently cleared.<sup>41</sup> The phased construction of the refinery began in 1950 following government approval. Initially developed to process crude oil from the Middle East, by 1955 a distillation plant, catalytic cracking plant and lubricating oil refinery had been built. Construction was hampered by the marshy conditions but the site, known as the Kent Oil Refinery, continued to expand during the 1950s and 1960s and included a power station, a new railway station, several deep-water jetties and an administrative block. By 1964 it was the second largest refinery in Britain, occupying almost a third of the island; its chimneys, gleaming metal storage tanks and miles of convoluted piping creating 'an example of modern industrial landscaping hard to equal'.<sup>42</sup>

Like other major post-war refineries the Hoo facilities, jointly operated after BP took over the Berry Wiggins site at Kingsnorth, attracted other industries and began to develop into a new industrial centre. In 1957 Segas set up a plant adjacent to the Grain refinery to produce gas from petroleum products.<sup>43</sup> This was followed in 1960 by a petrochemical plant, a joint venture by British Petroleum and California Chemicals known as BP California, using oil by-products for synthetic fibres.<sup>44</sup> But the most significant consequence was power generation. When the Central Electricity Generating Board started to build a new generation of power stations in the Lower Thames in the 1960s both Kingsnorth and Grain were selected as locations for new facilities, in part because of their proximity to oil supplies. In 1966 an application for an oil-fired power station at Grain was submitted for the site of the former seaplane station. Construction began in 1971 and the site was commissioned in 1982, although electricity was being generated by 1975.<sup>45</sup> When opened it was

claimed that Grain was the largest oil-fired power station in Europe, with an intended output of 3,300 megawatts (Fig. 10).



*Figure 10 Aerial view of the site of the Kent Oil Refinery and Grain power station in 2005 (NMR TQ8675-2 24065-19)*

The impact of this industrial growth was huge, felt not just on the island but across the peninsula. The accommodation needs of the refinery workers prompted a major campaign of house building by Strood Rural District Council in Grain, Allhallows, Lower Stoke and Hoo St Werburgh between the 1950s and the 1970s. The hamlet at Wallend, suffering from its proximity to the refinery, lost its farmsteads to piecemeal replacement by private houses and encroaching industrial expansion. Other consequences included improvements to the peninsula's main road, the A228, to cope with increased traffic and construction of several village halls, presumably including that on Grain, funded by BP.<sup>46</sup>

## Recent development

At the same time as Grain village was undergoing residential expansion it was also losing its military aspect (Figs 11, 12). In 1956 its coastal fortifications were abandoned and in 1961 demolition began of the fort and batteries, but not the tower.<sup>47</sup> The retained earthworks and infilled fort then became part of a recreation area named St James Park. However, the Ministry of Defence retained the Yantlet firing range on the northern marshes. This now included a row of inter-war police cottages and a complex of buildings known as Yantlet Battery. After gun testing ceased the area became a demolition range in 1963, declared a danger area in 1976.<sup>48</sup>



Figure 11 (left) Grain village in 1968 & Figure 12 (right) Grain village in 1972 © and database right Crown copyright and Landmark Information Group Ltd (All rights reserved 2013) Licence numbers 000394 and TP0024

Affected by the decline in demand for oil products following the supply crisis in 1973, the Kent Oil Refinery began processing North Sea Oil in 1976. But the facility was considered increasingly outdated and inefficient and in 1981 its closure was announced, along with the redundancy of 1,670 workers.<sup>49</sup> Its site was then largely cleared, including the catalytic converter plant which had inspired the renaming of the Cock Inn as the Cat and Cracker. In 1985 part of the refinery site were bought by British Gas, with the intention of building a liquid gas terminal. Another section was acquired by Highland Participants for a freight terminal. The firm was bought out by Maritime Transport Services in 1988

and the first facilities at Thamesport, as it was named, were operating by 1990. Both rail and road were used for distribution, requiring further upgrading of the A228 and the lowering of the railway line, which had closed to passenger traffic in 1961, to permit containers to pass under low bridges.<sup>50</sup> The present owners Hutchinson Port Holdings have undertaken further developments since 2001, including the dredging of a deep-water harbour.<sup>51</sup> Renamed London Thamesport, it is one of country's busiest container ports, realizing some part of Watkin's earlier vision for Grain's Medway riverside.

In 1991 a gas-fired power station was proposed for part of the refinery site, built for Southern Electric.<sup>52</sup> This was commissioned in 1995. Other industrial activity on the island includes gravel extraction at Perry's Farm.

In Grain village development has slowed since the closure of the Kent Oil Refinery, limited to one-off properties, a small close of private houses off Chapel Lane, and a block of flats built on the site of the Cat and Cracker public house. Other changes have included the restoration of the former Cock Inn, later post office, to a public house (renamed The Hogarth Inn) and the conversion of the Congregational Chapel into a library.



## CHARACTER AREAS

The open and expansive landscape of the Isle of Grain can be divided into three areas of differing character: the southern industrial zone; the marshes and farmland in the northern part; and the area of settlement on the eastern side – the only readily accessible part of the island. Despite a major, and heavily used, road, the A228, joining it and the peninsula, Grain retains the air of a place apart, and has no footpaths links with the adjoining parishes of Stoke and Allhallows.

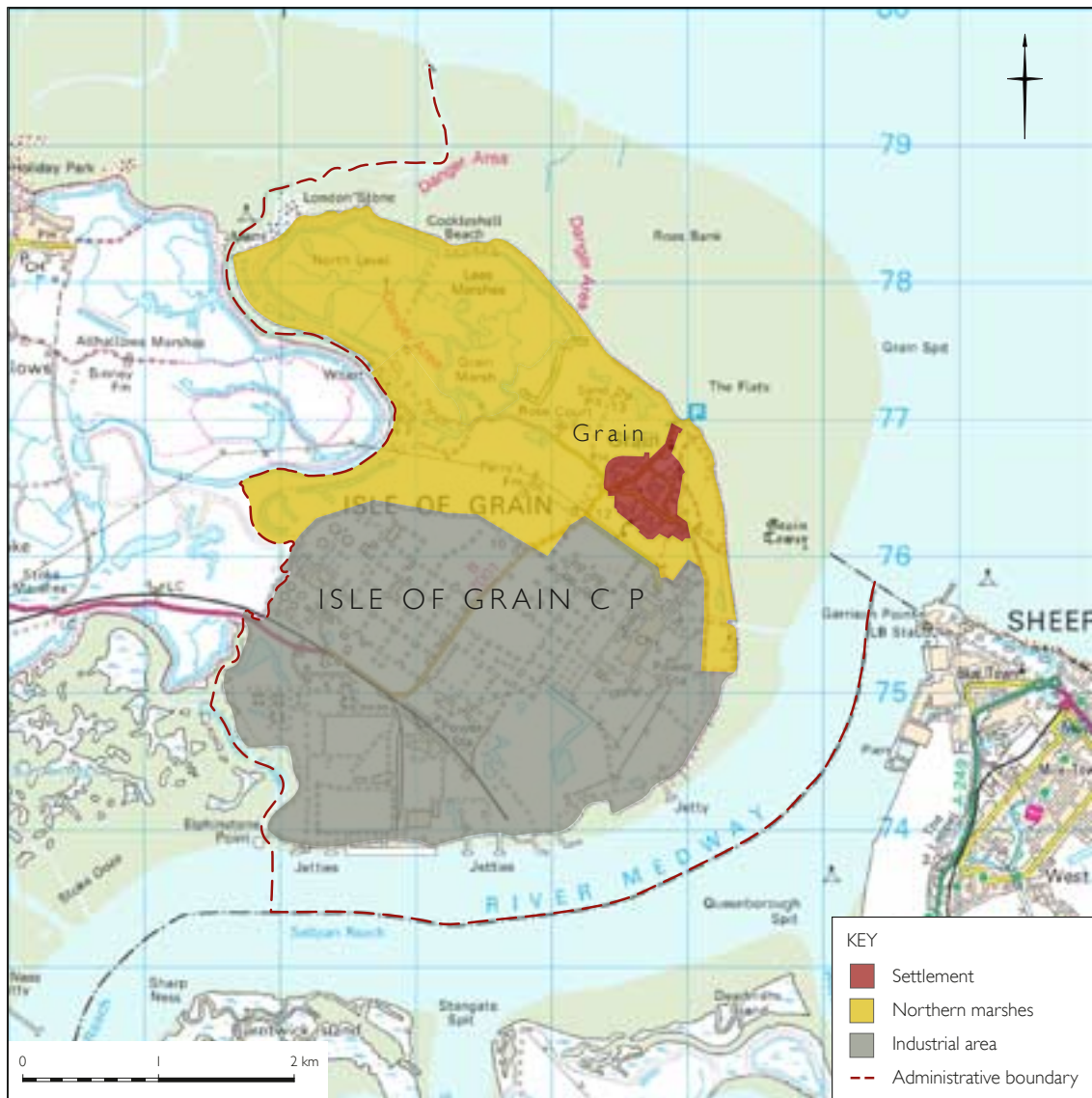


Figure 13 Character areas of the Isle of Grain. Background mapping ©Crown copyright and database right 2103. All rights reserved. Ordnance Survey Licence number 1000124900

## The industrial area

Almost two thirds of the island, stretching from Colemouth Creek to Grain village and to either side of Grain Road (a continuation of the A228 that serves the village), has an industrial, and in places post-industrial, character. Its active sites are quite widely dispersed, often sprawling across the open landscape and built on a scale that significantly contributes to perceptions of the Hoo Peninsula as an industrialized landscape. A road and railway line traverses the area, mainly serving the container port. The A228, upgraded for the port in the 1990s, crosses the Yantlet Creek at the same point at the earlier Grain Bridge. A disused railway station built by BP to serve the oil refinery apparently still stands. Evidence of a dismantled single track that branched off from the main line, used by the Admiralty to transport guns to their firing range on the northern marshes, also survives.

Until the late 19th century the area formed an expanse of marshland grazing, with upland arable fields around the farming settlement at Wallend and a riverside salt works. Now much of the land has been reworked for large scale industrial developments, including the modification of its fleets and ditches. In some places the scale of disruption has been major; for example, the construction of the power station necessitated laying down a 1.2 metre layer of dredged sand, driving deep foundation piles and constructing 'a subterranean spaghetti junction' of concrete waterways.<sup>53</sup> But some areas of older landscape remain, most notably ground to the south and west of the power station, including an inned marsh and section of counter wall.

Industrial activity, from the earlier salt works to the modern-day container terminal, has generally been orientated towards the river Medway. Today the stretch of riverside between Ephinstone Point and Cockleshell Hard has at least 10 jetties (Fig. 14). Most date from the mid-to-late 20th century and it is unclear whether any part of the 1920s steel jetty built by de Granahl remains. Remnants of the Port Victoria pier, in the form of wooden posts in the river, may survive. A slipway from Grain Air Station was still in existence in 2000 but dismantled soon after.<sup>54</sup>



Figure 14 Aerial view of Thamesport in 2005 (TQ8873-1 24075-14)

The industrial zone contains two sites that dominate not just the skyline of the island but

the eastern end of the peninsula, London Thamesport and Grain Power Station. At the riverside container terminal the most highly visible elements are seven 72m-high ship-to-shore gantry cranes, which stand on an extensive jetty.<sup>55</sup> The power station (built 1971-1982) has a massive steel-framed turbine house block, whose walls are clad in concrete panels and stucco-embossed aluminium sheeting, and a tall (244m) freestanding concrete chimney, the second highest in the country when completed. The architects, Farmer and Dark (assisted by Donald Rudd and partners) gave the main building curved eaves, sloping roofs and a distinctive 'jellymould' roof profile to soften its bulk.<sup>56</sup> Like other post-war Thameside power stations, the site utilises river water, taken via culverts, and so has no cooling towers. The pump house at Grain was incorporated into a reinforced-concrete circular coffer dam 'of unusual design and construction'.<sup>57</sup>

Medway Power Station, a gas-fired facility built 1993-5, is on a much smaller scale. Its construction was a multi-national effort, including a Japanese firm, Marabeni, Tarmac and the United States based Black and Veatch.<sup>58</sup> Shed-like in appearance, with two chimneys, it lacks the architectural aspirations of Grain Power Station. Other functioning sites include a gas storage facility and an oil distribution terminal on the western edge of the island near Grain bridge. The collection of tanks, along with those of Grain Power Station, are a reminder of the location's long association with oil storage. But much of the area remains a brownfield site.

### **The northern marshes**

To the north of the industrial zone lies a substantial area of reclaimed salt marsh, much of which is occupied by a military danger area, and farmland, which includes several gravel and sand extraction sites. It is crossed by overhead power transmission lines running west towards Kingsnorth. The low-lying marshes are protected by sea walls historically maintained by the North and East Kent Sewer Commissions and known as the North Level. Beyond the walls are areas of salt marsh edging the Yantlet Creek and wide expanses of tidal mud flats. On an area of shingle at the mouth of the Yantlet is an obelisk known as the London Stone, erected in the mid 19th century to mark the south eastern boundary of the Thames Conservancy (the body responsible for the management of the river between 1857 and 1972). To the north of Grain village is a line of concrete anti-tank obstacles built c.1940 as a measure against an enemy landing (listed grade II) (Fig. 15).

The marshland is still differentiated into discreet areas such as Lees Marshes and Newlands, a finger of reclaimed salt marsh beside a curve in the Yantlet.<sup>59</sup> The landscape remains one of meandering fleets and dykes, creating a jigsaw of pastures, some still used for grazing livestock (Fig. 16). However, few of the historic farmsteads remain in agricultural use, the best example being the complex at Rose Court Farm (Fig. 17). This was built in its present location in 1873 as an attached pair of brick houses, originally described as a baliff's house and cottage, and a substantial two-storey brick outbuilding.<sup>60</sup> The other farms would appear to have mainly or entirely lost their historic structures.

The farm complex at White Hall Farm, whose farmhouse was apparently known as Brick House in the late 18th century, seems to have been overwhelmed by the sand and gravel extraction works that was in operation here for much of the 20th century.<sup>61</sup> This is

witnessed by the presence of water-filled extraction pits, sand and gravel conveyors and other structures. The linear feature running to the north of the Kent Oil Refinery site may relate to a tramway used to transport gravel from the Yantlet Creek to Perry Farm in the early 20th century.<sup>62</sup> An active workings at Perry's Farm was established in the 1990s.



*Figure 15 (top left) Anti-tank sea defences (DP076211.tif); Figure 16 (top right) View across the northern marshes to the south east (P57330002); Figure 17 (bottom left) Rose Court Farm (P57330003) & Figure 18 (bottom right) Yantlet Farm with the check point beyond (P57330004)*

A number of structures associated with the military use of the northern marshes survive. These include a barge dock, remains of a jetty and the concrete base for a gantry crane, built c1917 for the loading and unloading of guns transported by barge from Woolwich Arsenal.<sup>63</sup> Guns were also carried to the range on a branch of the railway line, now dismantled. The ordnance was fired across the marshes from two firing points to Shoeburyness in Essex; the velocity was measured using velocity towers, evidence of which also survives. A number of associated buildings, mainly of concrete-block construction, and one structure from the military camp, identified as Yantlet Battery on the Ordnance Survey map of 1933, are also extant. These structures now form part of Yantlett Farm (Fig. 18). The site also houses a guardhouse or checkpoint and a row of four police cottages on Peat Way, of traditional construction and standard design dating from c.1935, and a concrete and brick pillbox (Fig. 19).



*Figure 19 The police cottages on Peat Way (P57330005)*

## Grain village and riverside

The main area of settlement is concentrated on the eastern edge of the island at Grain village, with some preceding ribbon development along Grain Road. The historic village, never more than loose grouping along the High Street (previously Church Street), Chapel Road and Green Lane, has been subsumed by post-war residential expansion. The result is an aggregation of mainly twentieth-century houses, semi-detached or bungalows with some blocks of flats, none higher than two-storeys. Beyond the 'expanded' village is an area of park and marshland, containing earthworks and other remnants of the fort and batteries. The river front consists of the Grain Foreshore flood defence wall and an extensive area of groynes; from here a tidal causeway leads to the artillery tower standing on the edge of the mud flat. Almost all of the islands listed structures and scheduled monuments are located in this character area.

The village contains a small number of historic buildings. The oldest of these is the parish church of St James (grade I), which dates from the 12th to 15th century (Fig. 20). Later work includes the removal of its aisles in 1815, an extensive restoration of 1904-5, by the architect Hodgson Fowler, and the addition of a tower.<sup>64</sup> The Hogarth Inn, formerly the Cock Inn, then Post Office, (grade II) is a timber-framed building with late-16th-century origins (Fig. 21). The pub also retains a large 19th century brick and tile outbuilding. The other significant pre-19th century survival is Whitehouse Farm, Chapel Road (Fig. 22). The farmhouse (grade II) has an 18th century appearance, with a handsome symmetrical front, and is clad in weatherboards. In 2009 a single-storey farm building, seemingly of a late-19th-century date, was still standing to its north.

A number of pre-20th century houses survive. Several pairs of houses on the east side of the High Street, Two Sisters, The Willows and Laburnam Cottages, are mid-to-late 19th century replacements of older properties. All have been extensively altered, as has Willow Cottage to the north of the church, which has its origins in an early-to-mid 19th century house. Other survivals include the Old Vicarage, a plain brick house apparently dating from 1862, and the mid-to-late 19th century Old School House.<sup>65</sup> Rissington, Green Lane, is a mid-19th century house, apparently used for a time by military personnel. Although several terraces of modest housing were built in Grain village in the late-19th century, including Doggett's Row (still commemorated in a road name), these were cleared during the 20th century. The sole survivor would seem to be Lee's Cottages, a row of three much-altered houses on West Lane that replaced older housing for farm workers (Fig. 23).





Figure 20 (top left) Church of St James [P57330006]; Figure 21 (top right) The Hogarth Inn (P57330007); Figure 22 (bottom left) Whitehouse Farm (P57330008) & Figure 23 (bottom right) Lee's Cottages, West Lane (P57330009)

The first local authority housing in Grain dates from the inter-war years, a row of six pairs of semi-detached houses, Nos. 1-23 Chapel Road (originally known as Trenchard Cottages) (Fig. 24). These plain, rendered houses, which follow a mildly staggered building line as advocated by the Tudor Water Report of 1918, were intended to replace the poorest quality accommodation in the village.<sup>66</sup> This was probably also the case with the earliest post-war housing on Grayne Avenue, built around 1949 in a mixture of traditional brick and non-traditional concrete house types. For the latter the Airey Rural House type was used (Fig. 25). But the great majority of the council housing around Chapel Road, Green Lane and north of the High Street, was built from between the late 1950s and the 1970s to house the oil refinery workers. Initially another non-traditional system, the Cornish Unit, was used for the housing on Coronation Road, Edinburgh Road, St James Road and St James Close. Structural problems with the Airey and Cornish Houses has required the facing of the outer pre-cast concrete walls in brick, although some properties on Grayne Avenue remained in original condition in 2009. The later phases of housing are of 'rationalised traditional' construction, mixing conventional materials such as brick crosswalls with factory made non-load bearing infill panels. They also break with Tudor Waters-style planning in favour of Radburn-type layouts with front access to the houses from grassed areas and separate parking facilities. The streets of housing to the north of the High Street are named after local families (Fry, Levett and Pannell) whereas the developments off Green Lane and Chapel Road, a mixture of houses, older persons

accommodation and two-storey blocks of flats, is laid out as closes and roads with bird names (like similar housing in Lower Stoke) South of Chapel Road, the housing occupies the site of the temporary military housing known as Bungalow Town.

In addition to the church, the village has a number of other community buildings. The library occupies the former Bethel Congregational Chapel, Chapel Lane (Fig. 26), a simple, plain brick building, designed by John Gordon, Senior Deacon of the Bethel Chapel in Sheerness, opened in 1895 on land donated by J. R. Dickens.<sup>67</sup> St James Primary School is post-war replacement for the 1860s National School, with recent additions dating from 1995 and 2009. Other facilities include a simple village hall, built of pre-cast concrete with a curved roof and bell-like eaves, of c.1956, a 1960s police office, with attached accommodation, at 10-12 Chapel Road (not longer in use) and Fire Station, rebuilt in 1990 after its predecessor was destroyed in 1987 (Fig. 27).<sup>68</sup>



*Figure 24 (top left) Nos 17-23 Chapel Road (former Trenchards Cottages ) (P57330010); Figure 25 (top right) Unclad Airey Rural Houses, Nos 7-8 Grayne Avenue (P57330011); Figure 26 (bottom left) Bethel Congregational Chapel, Chapel Road (P57330012) & Figure 27 (bottom right) Fire Station, Chapel Road (P57330013)*

The close proximity of village and military facilities is represented by a variety of surviving structures. Within the settlement the most impressive is the former Coastguard Station, Chapel Road, built for the Admiralty in 1900 (Fig. 28). This has the typical arrangement of a row of cottages and watch room, orientated towards the riverside. The two-storey brick houses have red-brick detailing and rendered panels on the first floor, high slate roofs and an abundance of chimneys. The larger northernmost house, with front and rear gables and attached single-storey watch room, was for the Chief Officer;

the other twelve cottages for the coastguards and their families. Subsequently used as accommodation for the staff stationed at Grain Air Station and the Yantlet Firing Range, the buildings passed into private occupation in the post-war period and have undergone piecemeal alterations such as window replacement.<sup>69</sup> In the vicinity of Chapel Road are a number of early-to-mid 20th century single-storey buildings some of which appear to be remnants of the extensive military accommodation camp known as Bungalow Town (Fig. 29). The Old Guard House, originally a brick and corrugated iron structure but now rendered, Rose Terrace, a row of four brick cottages, and Medtha, a bungalow on Port Victoria Road (Fig. 30), have all been altered for residential use. Two plain brick ranges to the east of the Coastguard Cottages have subsequently been used as a Scout Hut and Roman Catholic Chapel.



*Figure 28 (left) Former Coastguard Cottages, off Chapel Road in 1998 (AA98/07957) & Figure 29 (right) Map showing the Coastguard Cottages and Bungalow Town in 1933 © and database right Crown copyright and Landmark Information Group Ltd (All rights reserved 2013) Licence numbers 000394 and TP0024*

The riverside and tidal mud flats contain the most substantial military remains; part of the area has been scheduled as an ancient monument and it also contains some listed structures. The oldest of these is Grain Tower (grade II) which dates from 1848-1855, with significant additions and modifications made between 1939 and 1945 (Fig. 31). Its roughly elliptically shaped plan was derived from earlier Martello towers, built with an outer skin of ashlar granite and internal brick construction. The wartime modifications included a reinforced-concrete Battery Observation Post, added to the upper part of the tower and a freestanding barrack block, built of reinforced concrete and brick. The site of Grain Fort, which originally comprised a freestanding semi-circular keep surrounded by a massive polygonal earthwork forms the main feature of James Park, an informal recreational area created after the removal of the Fort in the 1960s. Although the infilled fort area bears little resemblance to the original structure, some features have survived beneath the remaining earthworks.

The remnants of Wing Battery (built 1895) and Grain Battery (built 1900-1) lie to the north of Smithfield Road. Their sites were partially cleared and the underground features sealed off in the 1960s, and are overgrown and partly wooded. Less survives of the earliest artillery battery, Dummy Battery (built 1867-9 and replanned in 1904), which was partly demolished in the 1950s, its site now almost encircled by a moat of water. Other



military features survive in the areas between the batteries including two pre-World War One searchlight emplacements and an engine room, probably built to supply power to Grain Tower during World War II.



*Figure 30 (top left) Medtha, Port Victoria Road in 1998 (AA98/07962); Figure 31 (top right) Grain Tower from the west in 1988 (BB048914.tif) & Figure 32 (bottom left) Grain power station with remains of the Dummy Battery in the foreground, taken in 1994 (BB94/05835)*

Such features contribute to a landscape with a strong sense of place: a mixture of undulating earthworks, concrete and brick structures, scrubland crossed by bridleways and tracks for walkers and riders and marshland grazing (Fig. 32). A car park has been provided near the riverside, which also has a concrete 'esplanade', groynes and a stretch of sand and pebble beach. Looking inland from the riverside the views are of the bulky power station, its chimney and spreading power lines with a foreground of horse paddocks. While the view outwards is across the open expanse of mud flats, the wide estuary and river mouth, to the distant Essex coastline and the nearer Isle of Sheppey.



## ARCHITECTURAL INTEREST AND SIGNIFICANCE

The loss of historic buildings and landscapes on the Isle of Grain has been considerable, with post-war clearance and redevelopment affecting not just its agricultural heritage but also its military and commercial sites. And, as elsewhere on the Hoo Peninsula, there has been a considerable amount of incremental changes, such as window replacement, reroofing and extensions, to many of its buildings.

The expanded village and the hamlet at Wallend bear few traces of their origins as agricultural settlements. Of the dozen or so farmsteads in existence at the beginning of the 20th century, only one appears to survive in any substantive way (Rose Court Farm). Few barns, stables and outbuildings remain and the vernacular cottages and mid-19th century houses occupied by agricultural labourers have mostly been demolished (or otherwise extensively modernized). But evidence of the islands pre-20th century agricultural community survives in a small number of buildings of architectural interest (principally the parish church, Hogarth Inn and White House farmhouse, all designated). The residential character of the settlement today is more that of industrial housing, with a range of 20th century local authority accommodation that encapsulates the history of such provision on the peninsula.

The military remains on the Isle of Grain are of considerable interest. These reflect the strategic importance of the Peninsula in general, and the Isle of Grain in particular, to the defence of the Medway and the Thames estuary. They are also witness to the diverse range of military activities that have occurred on the island, from prevention of smuggling to artillery testing. Evidence of successive generations of facilities constructed between the 1840s and

1940s survive in the form of earthworks, buildings and a number of other structures and their importance has been recognized through a combination of scheduling and listing. Some features remain relatively intact, principally Grain Tower and the foreshore anti-tank obstacles. But less survives of Grain Fort and its batteries than other contemporary facilities on Hoo such as Cliffe Fort and Slough Fort (Fig. 33). The surviving structures of Yantlet Firing Range are also be significant

survivals. Some sites have been lost entirely to redevelopment or clearance, including the Admiralty Oil Depot, Naval seaplane station and experimental aircraft depot and the anti-aircraft battery at Whitehall Farm. Another reminder of the once substantial military presence on Grain exists in form of residential buildings such as the impressive



*Figure 33 The site of Grain Fort, now St James Park, in 2011 (TQ8907/038 26866\_033.tif)*

row of Coastguards Cottages. Other buildings, such as the Old Guard House, Rose Terrace, Medtha, the former Roman Catholic Chapel and Scouts Hut, although modest in themselves, have interest through their military associations. Such premises could be considered for inclusion on a local list.

Industry has played a key role in shaping the built environment of the Isle of Grain. Reuse of sites has effaced evidence of older industries such as salt making although sand and gravel workings, active and historic, are more conspicuous. The two industries that dominated the post-war landscape - the oil industry and power generation - have left a mixed legacy. Grain played a notable role in the development of oil storage and processing in the early 20th century and between the 1950s and the 1980s was home to a major oil refinery, an important facility for petroleum provision and other by-products. The scale of the combined operation at Grain and Kingsnorth meant the industry's impact was felt across peninsula in various ways - from the upgrading of its roads, to the major house building programme that transformed many of its villages and the provision of new village halls (funded by BP). These associated developments are now perhaps the main testament to its scale and importance.

The related developments in post-war power generation on the Isle of Grain are also notable. Grain and Kingsnorth Power Stations form part of the wider story of energy provision and the development of the building type in the post-war years. Furthermore, Grain Power Station has claims to architectural distinction, described as representing 'a return to monumentality without compromising on the functional expression of form and the elimination of superfluous detail' and, more poetically, as 'the Chartres of the genre, one of the greatest in Europe' (Fig. 34).<sup>70</sup>



*Figure 34 View of Grain power station from the northern marshes (P57330014)*

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- <sup>1</sup> Wright, P 1999 *The River The Thames in Our Time* London: BBC Worldwide Ltd. 25-6.
- <sup>2</sup> The present beach is of recent origin. See Evans 1954. 192.
- <sup>3</sup> Remains were found in the 1990s on the site of the Kent Oil Refinery. Medway Archives, unnamed newspaper cutting, 24<sup>th</sup> April 1991.
- <sup>4</sup> The name Upland is given in a farm advert, *Daily Advertiser* 22nd March 1773; a counter wall once ran from the hamlet to the River Medway.
- <sup>5</sup> The farm is not shown on the tithe Map, surveyed in 1839, and on the schedule of 1842 its site was described as pasture. A cluster of buildings, known as Rose Court Barns, stood in Lee's Marshes until the mid 20<sup>th</sup> century; this may have been the original location of the manor.
- <sup>6</sup> Its later ownership up to 1798 was recounted in Hasted 1798, accessed at <http://www.british-history.ac.uk> 3/12/2009.
- <sup>7</sup> *The Morning Chronicle* 28<sup>th</sup> August 1824.
- <sup>8</sup> Reeves, Anne & Williamson, Tom 'Marshes' in Thirsk, Joan 2000 *Rural England* Oxford: OUP. 153.
- <sup>9</sup> The extent of the Rochester Bridge lands on the Isle of Grain was considerable; in 1839 it still owned 641 ½ acres despite the loss and sale of land. Evans 1954, 191.
- <sup>10</sup> Bowler, 1983 44; the Commissioner advertised for 'ragstone pebbles, or other stones' for Hoo and Grain in 1767, 1772, 1774 and 1779. See, for example, *Daily Advertiser* 22 June 1772.
- <sup>11</sup> Advert, *The Morning Chronicle* 11<sup>th</sup> March 1817; tithe apportionment 1842.
- <sup>12</sup> *Kelly's Directory of Kent* 1903, 310
- <sup>13</sup> Burnett, 116.
- <sup>14</sup> Advert, *The Morning Chronicle* 11<sup>th</sup> March 1817.
- <sup>15</sup> Tithe apportionment 1842.
- <sup>16</sup> Hasted 1798.
- <sup>17</sup> MacDougall 151; *Post Man and the Historical Account* 30<sup>th</sup> May 1710.
- <sup>18</sup> See adverts in *Daily Advertiser* 22 March 1773; *Gazetteer and New Daily Advertiser* 28<sup>th</sup> November 1791.
- <sup>19</sup> Hasted 1798; Bowler 1968, 293.
- <sup>20</sup> Hasted 1798
- <sup>21</sup> MacDougall appendix 1.
- <sup>22</sup> Shown on the tithe map, surveyed 1839.
- <sup>23</sup> Brown, Pattison and Williams 1998 4-5.
- <sup>24</sup> For example Kelly's Directory gives a figure of 39 in 1903. *Kelly's Directory of Kent* 1903, 310.
- <sup>25</sup> Brown, Pattison and Williams 1998 6.
- <sup>26</sup> Monument 911435 record at <http://www.pastscape.org/> accessed 14/08/2009.
- <sup>27</sup> National Archives, HO 45/9952/B31935; HO 45/9953/B32198.
- <sup>28</sup> MacDougall 156-7.
- <sup>29</sup> Record on Grain site at <http://www.pastscape.org/> accessed 14/08/2009.
- <sup>30</sup> MacDougall 137.
- <sup>31</sup> Evans 1954, 195.
- <sup>32</sup> Couchman collection. <http://cityark.medway.gov.uk> accessed 3/2/2011.
- <sup>33</sup> MacDougall, 129-30.
- <sup>34</sup> Conrad, J 1906 (repr 1946) *The Mirror of the Sea* London: Methuen. 91.

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- <sup>38</sup> Burnett 134.
- <sup>39</sup> Evans 1957; MacDougall 156-7.
- <sup>40</sup> Evans 1954, 195.
- <sup>41</sup> Evans 1957; MacDougall 156-7.
- <sup>42</sup> *Times* 19<sup>th</sup> February 1964, 16; Matthew 128.
- <sup>43</sup> MacDougall 158.
- <sup>44</sup> *Times* 7<sup>th</sup> October 1960, 24.
- <sup>45</sup> Williams.
- <sup>46</sup> MacDougall 175.
- <sup>47</sup> The demolition contract was signed in 1961. 163/44/SR, Medway Archives.
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- <sup>57</sup> *Ibid*
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- <sup>59</sup> The pasture had this name in the tithe schedule in 1842.
- <sup>60</sup> Catalogue to the archives <http://www.rbt.org.uk> accessed 23/6/2011; drawings of Rose Court Farm at <http://www.cityandregion.org/RochesterBridgeTrust/RoseCourtManor/> accessed 25/6/2012.
- <sup>61</sup> 'A map of the Hundreds of Hoo and of Chatham and Gillingham', Hasted 1798, 191.
- <sup>62</sup> Used by the Aylesford Sand and Stone Quarry Company to supply gravel to Admiralty. MacDougall 161.
- <sup>63</sup> <http://www.kenthistoryforum.co.uk/> accessed 3/2/2011.
- <sup>64</sup> Catalogue entry for minute book, St James Parish <http://cityark.medway.gov.uk> accessed 3/2/2011.
- <sup>65</sup> Burnett, 56.
- <sup>66</sup> There were one of three similar developments built either by Hoo Rural District Council or Strood Rural District Council; the other developments being Beatty Cottage, Allhallows and Windmill Cottages, Lower Stoke.
- <sup>67</sup> The connection with Sheerness dates to the formation of the chapel in rented accommodation in the 1822, supplying its earliest preachers to Grain. Burnett 84.
- <sup>68</sup> PC314\_023, Medway Archives; *Medway Extra* 14<sup>th</sup> September 1990.
- <sup>69</sup> Burnett, 106, 109; MacDougall 195.
- <sup>70</sup> Guillery and Williams; *Building Design* 16<sup>th</sup> September 1977.





## ENGLISH HERITAGE RESEARCH AND THE HISTORIC ENVIRONMENT

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The Heritage Protection Department undertakes a wide range of investigative and analytical projects, and provides quality assurance and management support for externally-commissioned research. We aim for innovative work of the highest quality which will set agendas and standards for the historic environment sector. In support of this, and to build capacity and promote best practice in the sector, we also publish guidance and provide advice and training. We support community engagement and build this in to our projects and programmes wherever possible.

We make the results of our work available through the Research Report Series, and through journal publications and monographs. Our newsletter *Research News*, which appears twice a year, aims to keep our partners within and outside English Heritage up-to-date with our projects and activities.

A full list of Research Reports, with abstracts and information on how to obtain copies, may be found on [www.english-heritage.org.uk/researchreports](http://www.english-heritage.org.uk/researchreports)

*For further information visit [www.english-heritage.org.uk](http://www.english-heritage.org.uk)*

