# The fortifications of Hull

David H. Evans

Hull was a major medieval port in North-East England (Fig. 1). Its strategic importance as a deepwater port on the Humber Estuary was one of the principal reasons behind its foundation and development. Its predecessor, Wyke, had already emerged as a prosperous European trading port by 1290,<sup>1</sup> but the King needed a naval base in the north of England for a planned invasion of Scotland, and so in 1293 he bought Wyke, and expanded it into his "King's town" of Hull.

The new foundation lay at the confluence of two major rivers – the Humber Estuary and the River Hull – and these formed the natural boundaries to the south and east of the town. The town was set within the lowlying wetlands of the Lower Hull Valley, and was prone to flooding; this was to prove a major strength in planning its defence against attack from the landward sides, and it was to prove a decisive factor in the town being able to withstand two major sieges during the English Civil War. Most of the roads leading to the town were prone to flooding for several months of the year, and in bad weather could be washed away entirely. The easiest way to travel was by water, and so, whilst Hull had control of the river systems, and could continue to be supplied by sea, the defenders would always have the upper hand. Yet, this was also potentially its most vulnerable side, as it could be attacked by enemy ships. Hence, the approach to the town from the River Humber (Fig. 1) has been crucially important to the defence of the town for the last 700 years; this was usually the first part of the defences to be strengthened, and often incorporated the most sophisticated or strongly-built elements of the whole defensive circuit.

A useful overview of the historical evidence was published by the Victoria County History, but more recent assessments include Foreman and Goodhand, and Howes and Foreman.<sup>2</sup> Archaeological investigations began with the medieval Town Walls; parts of these walls and two of their towers were investigated in 1964 and 1969. Further sections of the walls were examined in the next five decades. Of the five main Gates to the town, only the Beverley Gate has been subject to any extensive excavations.<sup>3</sup>

The post-medieval defences on the east bank of the River Hull mostly survive in very good condition. Evaluations have taken place on two of the three blockhouses forming the mid-16th-century defences on that bank of the river; the contemporary Curtain Wall, which linked these blockhouses, has also been examined.

The later 17th-century Citadel has been subject to several excavations during the last 30 years. Further evaluations have since taken place. During the last twelve years, the opportunity has also arisen to investigate the former South End Fort, which was constructed in the 1620s (and later known as the South Battery).

When Hull was founded in 1293, no provision was made for constructing any defences. However, the subsequent war against Scotland went badly, and by 1318 Scottish armies were advancing into Yorkshire. The threat to the town, as the principal supply-port for the English armies in the north, was obvious. In July 1321 the King granted a licence to erect defences around the town (Fig. 1), and gave a five-year grant to cover part of the costs; the town had to pay for the remainder of the works. Work on building a defensive circuit had already begun by 1322. The new defences were set around three sides of the town, but the east side, facing onto the River Hull, was left open as this river frontage incorporated the town's main waterfronts and port facilities. Access by road and from the River Humber was provided by five main gates. By the end of the Middle

Study of the defences

The first defensive circuit in timber

<sup>\*</sup> A more detailed version of this paper, with an extensive Discussion and Bibliography, was published as Evans 2018, and may be found at https://www.tandfonline.com/doi/full/10.1080/00665983.2017.136 8156 . A full account of the fieldwork summarised here may be found in Evans 2015, at the Archaeology Data Service website.

<sup>1</sup> Evans 1999.

<sup>2</sup> Allison 1969; Foreman/Goodhand 1996; Howes/Foreman 1999.

<sup>3</sup> Evans 2015.

<sup>4</sup> Foreman/Goodhand 1996; Howes/Foreman 1999.

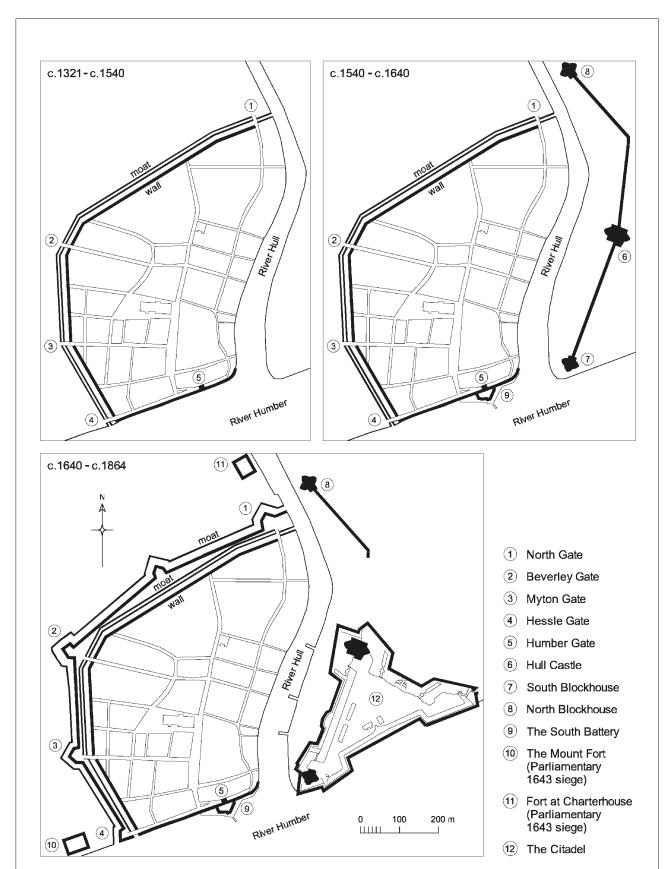


Fig. 1: The schematic development of the Hull Defences between the mid 14th century and the end of the 17th century.

Ages, the defences also incorporated four posterns: these were small tower gates or sally-ports. The Little Lane postern remained standing until the mid 1960s.

The initial circuit comprised a clay bank topped by a timber palisade, and a ditch. Substantial remains of this bank and ditch survived at both North Walls, and at the Beverley Gate; the ditch averaged c.  $12 \, \text{m}$  in width and c.  $6 \, \text{m}$  in depth; its original depth was probably c.  $6 \, \text{m}$ .

The total cost of digging the ditch, erecting the bank, palisade and gate(s), and of all of the materials used in their construction between 1321 and 1324 was £ 347 18 s  $5\frac{1}{2}$  d. The bulk of this first defensive circuit was made of timber: the costs of the timber and carpenters constituted around 40% of the expenditure, whereas all the masonry materials cost merely 11.5%. The use of brick and stone at this date was probably limited to the foundations, and, perhaps for selective strengthening or details. Most of the bricks were probably made at the Corporation brickyard in Hull.  $^6$ 

Construction of this initial circuit was clearly still in progress in 1325, as the King gave a further three-year grant to complete the work. The timber circuit was probably completed by 1330, as when the King visited the town in October 1332, he was said to have been 'highly pleased with the excellent fortification of the place.'

Excavations at the Beverley Gate have shown that the earliest gate structure was of timber, and dated to the second quarter of the 14th century. It was a freestanding structure which projected forward from the line of the clay bank with its timber palisade. The gate was set on a frame of ground sills, made from squared oak beams, into which the uprights and diagonal braces were fixed with mortise-and-tenon joints.

The second defensive circuit: brick Town Walls

The timber gates

At some stage before 1339, work began on replacing the timber palisade with a brick Town Wall. The new wall was set on a low chalk-rubble foundation, cut into the front of the former clay rampart. Excavation has shown that this wall can still survive to a height of 20 courses (Fig. 2). Its full height would have been about 4.2 m to the sentry walk, with an additional parapet 1.8 m high. As with its timber predecessor, the brick circuit enclosed three sides of the town.

In its final late medieval form, it included five gates, and up to 30 towers and posterns; the brick circuit alone (excluding the gates) incorporated at least 4,700,000 bricks; perhaps over five million bricks, with the gates. In the period before 1356, the town's brickyard rarely produced more than 100,000 bricks in any one year, and in most years it produced far less, and in some, none at all.<sup>7</sup> Thus, even if its entire annual production had been used for the construction of the Town Wall, it would have taken at least 47 years to complete; in fact, the murage grants show that work on the defences was envisaged during most of the decades between 1321 and 1406 (a period of 85 years).

The earliest reference to a town wall in 1339 refers to the south side of the defences facing onto the Humber; as the approach from the sea was one of Hull's most obvious weaknesses, this was possibly the first part of the circuit to be rebuilt in brick. Grants of 1341 and 1348 state that these were to enable the inhabitants 'to complete a wall', whilst the 1355 grant was 'to finish their wall begun on the water of Humber.' In 1353–54 about 67,000 bricks were purchased for this work.

By the mid-1370s there were fears of a French invasion. Murage grants resumed in 1376. In 1377 the King ordered a thorough survey of the walls and dykes to be carried out, and any repairs undertaken. Successive murage grants through the 1380s and 1390s show that major campaigns of construction were being carried out during the reign of Richard II; the likelihood is that the walls in their final form, with their many interval turrets, were completed in the later 14th and early 15th centuries.

5 Evans 2015.6 Brooks 1939.7 Brooks 1939.



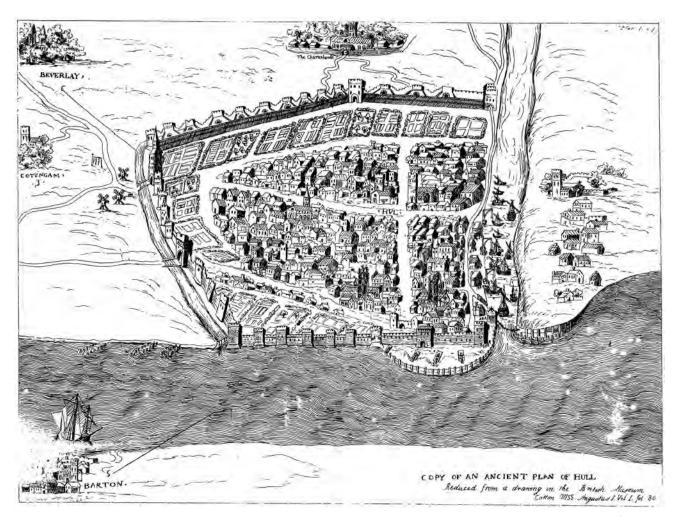
Fig. 2: Part of the medieval Town Wall extending northwards from the Beverley Gate. The lower courses of the Town Wall were battered outwards, and were set on a chalk footing.

Numerous repairs are documented as being carried out during the 15th century – mostly to various towers and posterns, but also to the Town Walls. The threat of an imminent attack in 1460, during the Wars of the Roses, prompted the excavation of some extra ditches and the construction of additional earthworks outside three of the Town Gates. Guns were also placed on every waterfront quay, and an iron chain was stretched across the entrance to the River Hull.

The earliest useful depictions of the town defences are in two views of c. 1538–39;8 these were probably commissioned as part of a royal survey of the defences undertaken by John Rogers, following Hull's surrender to the Pilgrimage of Grace in 1536–37. These clearly show the form of the walls, and their various towers and turrets (Fig. 3); whilst flights of steps can be seen at the rear of the north and west walls, giving access to the wall-walks. Arrow-slits and gun-loops can be seen in the walls and in individual towers. Also visible in these views is a D-shaped timber-revetted structure to the south-east of the Humber Gate, in the position later to be occupied by the South End Fort. Four cannons are shown mounted on flat beds, with low earthworks between them; immediately to the west, set into the Town Wall, is a round tower which contains artillery embrasures. Both are useful reminders of the importance that artillery had assumed in siege warfare by this date.

Excavation trenches cut across various parts of the Town Wall show that its dimensions and form vary in different sections of the circuit; this

8 de Boer 1973, pls 10-11.



has resulted from it being built in a number of campaigns spread out over a lengthy period, and from different gangs of workmen having been employed on its construction. The best-understood section of the Town Wall is that adjoining the Beverley Gate. Here, the wall was set on a shallow foundation of chalk rubble, cut into the front of the rampart. The bottom 1.2 m of the brick wall rises in a gentle slope, or 'batter', with each fresh course of brickwork set slightly back from that beneath. Above this height, the wall rises vertically. All of the bricks used were handmade, and were bonded with a lime-based mortar.

Fig. 3: Hull in c. 1538–39, seen viewed from the Humber Estuary. The town is walled on three sides. A battery of guns sits in front of the Town Walls; a chain is stretched across the mouth of the River Hull. This is a 19th-century copy of an original plan.

The four main gates opened to landward, whilst a fifth gave access to the River Humber. In addition to these, there were also three smaller gates or posterns (one of which survived into the mid-1960s).

The earliest gates were built of timber. Towards the end of the 14th century, the Beverley Gate was rebuilt in brick as a simple rectangular tower, enclosing a tunnel passageway. This new gate was two storeys high, and was topped by a steeple. The front of the central passageway was flanked on either side by projecting angle-buttresses. This passageway was c. 7.6 m long, and with an internal width of at least 3.8 m. All of the Gates projected forwards from the Town Wall, and the ditch in front of them was crossed by drawbridges.

Up to 31 interval towers and turrets were incorporated in the walled circuit; but at least one of these was added in the 16th century. In addition, there was a freestanding Chain Tower, to secure the boom-chain across the River Hull. The 16th- and 17th-century depictions of the defences show that some of these towers were rectangular, others were round or

The gates and posterns

The turrets and towers



Fig. 4: A view of Hull from the west in about 1638, drawn by Wenceslaus Hollar. This shows the town just before the English Civil War. The four main gates on its north and west sides are clearly visible, whilst this is also one of the first detailed depictions of the 16th-century defences on the east bank of the River Hull.

D-shaped; these towers would have been about 9 m high, whilst the Town Walls were about 6 m high.

Whilst many of these may have been constructed by 1406, when the last murage grant expired, at least two more were added during the course of the 15th century. The c. 1538–39 depictions of the town suggest that at least one of these towers had had gun-ports added, to enable the use of artillery weapons.

Two interval towers have been excavated; both were rectilinear in plan, and parts of their brick walls survived to over 20 courses in height. The more complete example measured c. 7.19×4.57 m in plan. Its walls were of brick, laid on top of a number of courses of large chalk blocks; its rear wall still stood to a height of 36 courses, whilst its front wall stood 25 courses high, with its base raked outwards, to give greater stability and strength.

The entrance to the River Hull was a major weak point in the circuit, as this gave access to the town's waterfronts. On its western side stood a tall tower, which existed by 1369. Just to its north was a second smaller tower (The Ankerhouse). In order to prevent any enemy attack from the sea, a boom-chain could be slung across the river mouth, with one end of this chain anchored to this tower; the other end of the chain was secured to a tower on the opposite bank of the river. This second tower is shown on a c. 1538–39 map.

Mid-16th-century defences to the east of the town By the 1530s England was politically isolated, and feared possible naval attacks by the alliance between France, Spain and the Holy Roman Empire. Consequently, the King decided to strengthen the defences around key strategic ports at the end of the 1530s. Hull was of particular concern, because it had been surrendered to a rebellion in 1536–37, without much resistance.

A detailed royal survey of the town and its immediate surroundings was undertaken by John Rogers; this resulted in two detailed plans of Hull

in c. 1538–39.9 Various improvements were planned for the existing Town defences. But, the most significant improvement was to be the construction of new defences on the undefended east side of the River Hull (Figs 1 and 4). These would consist of three new blockhouses to be connected by an 830 m-long and 3 m-thick curtain wall, topped with battlements. The central blockhouse, known as Hull Castle, would command the port and waterfronts, whilst the North and South Blockhouses would protect the bridge across the River Hull, and the entrance to the Haven.

The new north and south blockhouses were intended to present a low silhouette to attacking artillery; they had curved flanks and parapets to deflect cannon-balls, and were designed to allow batteries of artillery to be placed at varying heights. In contrast, the central blockhouse, Hull Castle, had pointed segmental bastions: this marks a development towards more sophisticated Italianate angle-bastions.

The new works were undertaken in 1541–43 and cost £ 23,144. The new defences were built mainly of brick, and still survive in reasonably good condition, to a height of up to 2.5 m. The two end blockhouses were gun-platforms, comprising central square blocks surrounding a courtyard, to the exterior of which were added three semi-circular bastions, to produce a trefoil plan. They were two-storied structures, topped with crenellations; the upper platforms also mounted guns. The central blockhouse (Hull Castle) had a larger, more rectangular, three-storey inner keep, to the east and west of which were added bastions of segmental plan; its outer walls were up to 6 m thick, whilst those of the inner keep were about 2.6 m thick. Platforms above the inner courtyard also carried guns.

Excavation at the South Blockhouse revealed that the external walls had a gentle batter, and were built of brick; they survived to a height of at least 1 m, and a width of at least 4.2 m. A series of gun-ports, with splayed embrasures faced with either brickwork or limestone ashlar quoins, were built into these walls. Internal floor-deposits also survived. Sealed beneath later 17th-century deposits were the barrel and breech-chamber of a discarded 16th-century gun.

In 1996 part of the south wall of Hull Castle was examined, exposing two hand-gun ports, a paved glacis, and an entrance, set at the mid-point of the wall, leading to a gallery running behind. The outer wall was 2.2 m thick, and comprised a core of mortared brick and stone rubble, faced with coursed brickwork. Limestone facing was used on the splayed embrasure of one of the hand-gun ports. A gently sloping glacis, paved with half-bricks or fired-clay tiles, lay between the outer wall and an external moat.

The Curtain Wall survives best close to Hull Castle. Here, it varied between 3.1 and 3.2 m in width, and was built with a mixture of bricks and half-bricks; it survives up to a height of c. 1.75 m. Such dimensions accord well with 17th-century surveys of the defences which describe this wall as being c. 3.96 m high from foundation to parapet, and measuring c. 3.5 m thick at the top and c. 4.26 m at the base. Where fully exposed, the lower parts of this wall have been shown to have had two offsets on its western side, with coursed masonry at its base. In places, a ditch ran parallel to it, about 4 m to its west.

Early 17th-century plans of Hull show a moat to the east of the Curtain Wall and the blockhouses; archaeological evidence for this was observed at Hull Castle in 1970. A plan of 1660 appears to show a second such moat to the west of the Curtain Wall and blockhouses – i. e. between these defences and the River Hull.

In the mid-1580s Hull's defences were strengthened because of fears of a Spanish invasion. Excavations at the Beverley Gate uncovered three of the principal timber uprights for the eastern end of a bridge across the Town Ditch. Dendrochronology has shown that these oak timbers were The later 16th- and earlier 17th-centuries

9 de Boer 1973, pls 10-11.

from trees felled after AD 1580. This new bridge may date from the mid- or later 1580s. It was probably a drawbridge – as indicated by an adjacent, rectilinear, brick-lined pit for its counterweights. (Figs 1 and 4)

The South End Fort

In the mid and later 1620s there were fears of a Spanish invasion. In 1626 the Government ordered that Hull should be fortified against the Spanish, and it was reported in 1627 that 'several fortifications and bulwarks' had been built. One of these new fortifications was the South End Fort (a new fort at the southern tip of the Old Town), whilst a battery of guns also seems to have been added near the South Blockhouse on the east side of the River Hull. Further improvements were made to the defences in 1629–30.

Excavations at the South End Fort have shown that the remains of the 1627 D-shaped fort survive in excellent condition. Its brick-faced ramparts still stand up to a height of about 1.1 m, and are some 4.5–5 m thick; at least two phases of walling were present. In 1634 this fort was armed with eleven guns. A number of gun-emplacements were identified in the excavations; well-preserved internal buildings and cobbled courtyards were also found. The whole structure was protected from tidal erosion by a massive brick river-wall, which was 1.9 m thick, and survived to a height of at least 3 m.

This Fort was surrounded by a brick-faced earth rampart, with several angles and shallow re-entrants. The ramparts were between 4.5 and 5 m wide, and had soil-filled cores, revetted at front and back by brick walls set on chalk-rubble foundations. These ramparts had angled returns, flanking seven vaulted brick gun-embrasures; the latter were cut into the ramparts, and opened back into an internal cobbled courtyard. The floors of the gun-embrasures were also cobbled. Four of the gun-embrasures have been located, and have strengthened brick-linings.

Changes made before the Civil War

In 1638–40 Hull's defences were strengthened, in preparation for a war against Scotland. The Town Ditch was cleaned out, new drawbridges were added, and a new outer ditch was planned around the town. Inside this new outer circuit, in the space between the two ditches, half-moon batteries were to be erected in front of each of the main gates, and were linked by breastworks to form a continuous outer perimeter. Excavation of the new circuit of ditch did not actually begin until 1640, and was still underway in the September of that year. None of the outer circuit of defences or the half-moon batteries has ever been located by excavation, but their form and positions are clearly depicted on a number of 18th-century plans of Hull.

In c. 1638, Wenceslaus Hollar produced a plan of the town (Fig. 4). By this date, refurbishment is evident at some of the gates – e.g. new guard-houses had been added to the rear of the Beverley Gate: these were almost certainly intended to cope with the additional demands imposed by the installation of artillery. These new guard-houses had brick-vaulted ground floors, with a stairway leading to the upper floors. Tall side chimneys depicted on the c. 1638 plan attest the presence of fireplaces on the upper floors.

Hull was to play a major role in the early stages of the English Civil Wars, as it housed one of the largest arsenals in England. Indeed, the refusal of the town to allow the King entry into Hull in April 1642, followed by the first abortive siege of the town in July 1642, were the events which led inevitably to the onset of open warfare.

Hull in the English Civil Wars

By early 1642, the relationships between Charles I and Parliament had reached an all-time low: England was on the brink of Civil War. Preparations were being made by Charles I and Parliament for the inevitable conflict. Both sides realized the strategic importance of Hull as a port, as well as being the location of a massive arsenal of weapons and ammunition.

In April 1642 the King and 300 men intended to seize Hull and its arsenal, but they were refused entry into the town. After a stand-off, the King and his men withdrew.

In July 1642 and September 1643 Royalist armies twice besieged Hull unsuccessfully. In both cases, the town was bombarded with artillery, and sustained considerable damage. During both sieges the defending forces flooded the surrounding landscape, whilst the attacking forces cut off the town's main fresh-water supply; the latter action was not as effective, as hoped, because the defenders had access to many wells within the town. On both occasions, Parliament controlled the navy, and so was able to resupply the garrison by sea. In both cases, the Royalists abandoned their sieges after a few weeks, and withdrew. No archaeological evidence has yet been found for the 1642 siege, and the later siege is represented only by finds of cannon-balls and musket-balls within the Old Town and around the locations of known siege-forts and defenders' forts.

The two sieges of Hull

A survey of 1646 estimated that the cost of repairing the damage caused by the two sieges would be £ 6,605. On the east bank of the Hull, the gun platforms, walls, brickwork, bridges and a jetty all needed to be repaired (39.06% of the total costs). The other 60% was spent on repairs to the Town Walls and Gates. Near the North Gate, 52 new buttresses were needed; whilst on the western side of the town, much of the Town Wall had collapsed outwards, and needed new earthen revetments and 40 new gun-platforms to be built behind the walls. Excavations at the Beverley Gate revealed evidence for additional strengthening works at the front of the gate, and for new bridge-timbers being sunk into the eastern side of the moat.

The defences from 1645 to 1680

Whilst the costs may have been quickly established, the implementation of these recommendations was much slower. Between 1649 and 1653, only £2,600 (a third of the estimated costs) was spent on repairs, and these mainly concentrated on strengthening Hull's seaward defences, in response to the first Anglo-Dutch War (1652–54). An inventory of the town's artillery in June 1660 lists 71 guns, the bulk of which were concentrated on the east bank of the River Hull, or at the South End Fort, guarding the entrance to that river; only 13 guns were based in other parts of the defences.

A visitor to the town in 1673 described it as "a place of exceeding great strength." Yet, despite this favourable impression, the condition of the defences was actually one of ongoing neglect, as only the most urgent repairs had been implemented since the end of the Civil War, and these mainly concentrated on the East Bank defences; little money seems to have been spent on the repair and maintenance of the main town defences before the mid-1670s.

The appearance of the Dutch fleet in the River Medway in 1667 and the success of their privateers and men-of-war off the Holderness coast in the war of 1672–74 led to fresh concern about the state of England's coastal defences. In c. 1681 Bernard de Gomme drew up initial designs for a new 12.15 ha. fortification on the east bank of the river, to be known as The Citadel (Figs 5 and 6). His deputy, Martin Beckman, significantly improved upon his design, and oversaw its construction in the following years. The new fortress incorporated the earlier Hull Castle and the South Blockhouse, and served the dual function of protecting the approaches from the river, and of overlooking the town. By 1688 the earthworks of The Citadel were substantially complete, but the accession of William of Orange to the throne of England effectively removed any further threat of an invasion by the Dutch, and the work was largely abandoned from 1690 onwards. The overall cost of the construction-work up to this point was upwards of £ 100,000.

The later 17th-century Citadel



Fig. 5: The Hull Citadel, built between 1681 and 1690. A ravelin at the south-east bastion; the trapezoidal contreforts of the gun positions can be clearly seen lining the walls.



Fig. 6: Hull Citadel. Brick-paved passageway through the magazine and sally-port, with quard-chambers on either side.

The Citadel was a triangular fortress, with substantial cut-bastions at each of its corners (Fig. 5). Its south side was ranged parallel to the River Humber; its western side faced onto the River Hull and opened onto the waterfronts and eastern flank of the town on the opposite bank; its eastern side faced towards Holderness. This major fortress took the best part of ten years to build, to the point of being largely complete, but unfinished.

Between 1681 and 1683 work concentrated on strengthening the 16th-century defences. In 1684–85 the eastern arm of the fortress was constructed, to provide a defence against any landward attack from the east. In 1686 the focus turned towards the construction of the seaward side facing onto the Humber; this south flank was largely completed in 1689–90. The upper parts of the brick revetment were never finished – the top 1.5 m was never laid; even as late as 1705, no gun-embrasures had been built to face onto the Humber. Although the Citadel was put in order for the Jacobite rebellions of 1715 and 1745, it was increasingly used as a stores-depot rather than a fortification. It was eventually demolished in 1863–64.

Extensive excavations on this site have confirmed the positions of its perimeter walls and some of its sally-ports, and have revealed a wealth of detail about its construction. Most of the internal buildings were completely destroyed by the 19th-century demolition; however, the site of its magazine and some of the guard-rooms (Fig. 6) adjoining the perimeter walls have been identified. Part of its western base-flank battery (a lowlying, linear artillery-platform located in front of the main earth rampart on its western side, and protected by a low bank) was also located and examined. Base-flank batteries had formed part of the original design of the Citadel from the outset; the western base-flank battery had been constructed by 1688.

The west side of the enceinte incorporated the existing Hull Castle and South Blockhouse; the former Curtain Wall which linked them became the outer revetment for a massive clay rampart facing onto the River Hull. Additional defence was provided by a platform in front of the South Blockhouse, and new base-flank batteries on the flanks of the cut-bastions. The rampart here was faced on the rear with turf, and was c. 18.3 m thick, and between c. 3.4m and 5 m high; 27 embrasures or gun-ports were set within its parapet. The corner bastions were faced with brick. A new external ditch, up to 15.25 m wide and c. 4 m deep, was dug in front of the new rampart.

The eastern side contained the main entrance. Here, the new rampart was c. 36.5 m thick, and c. 3.4–5 m high, incorporating casemated passages. A ravelin protected the approach to the Main Gate. The latter comprised a passage, flanked on either side by guardhouses. Because the ground in this area was very soft and water-logged, wooden piles were sunk at intervals, to support the rampart. The new wall in front of the rampart was set in a construction-trench, and built largely of brick, but faced with ashlar at its eastern terminal. A large moat was excavated outside of these defences.

The south side needed a sea-wall, to prevent erosion by the tides of the Humber Estuary. A lattice of ground timbers was laid on top of massive wooden piles to support the new wall. A jetty to the east acted as a breakwater, to protect the wall from tidal erosion. In August 1687 two million bricks were ordered for this part of the project. The new seawall had a smooth sloping face dressed entirely with ashlar masonry, and capped with a stone roll-moulding. This stone-faced wall stood to a height of c. 4.6 m; above this, a vertical brick facing was added in 1690. The brick walling here was intended to have extended above the stonework for another 3.7 m; but, when construction was abandoned in 1690, it had reached a maximum height of only 1.8 m.

The sea-wall formed the front face of a clay rampart which was c. 18.3 m thick, and which rose to a height of c. 6.4 m. Set at intervals on top of this rampart were embrasures or gun-ports; these survive as trapezoidal counter-forts.

Excavations have revealed not only the main ramparts and cut-bastions, with their associated gun-positions and sally-ports, but also the bases of some of the internal buildings of the Citadel. As the Citadel remained in use for some 180 years, excavation has also identified evidence for substantial modifications and refurbishment. In places, more than one phase of clay rampart has been identified, with clearly-defined turf-lines separating the successive ramparts; in others, a timber revetment, consisting of horizontal boards set on edge behind a line of retaining-posts, has been found at the front face of the base of a rampart, at the edge of the moat.

In June 1681 Beckman had made a survey of all of the existing defences at Hull, including those surrounding the town on the west bank of the Hull. This showed that the Town Walls were now seriously dilapidated. He recommended that five sections of the Town Wall should be rebuilt. Later finds of wooden piles beneath some of the old towers, suggest that at least part of the Town Walls may have been rebuilt at this date; the use of piles beneath the medieval walling has not been observed in any of the other parts of the defensive circuit, but this was a feature of Beckman's work. He also recommended additional works to be carried out elsewhere on the circuit (e.g. at the South End Fort, and on the Civil War earthworks).

Late 17th-century work on other parts of the defences

After c. 1700, the medieval circuit of Town Walls became less relevant to the defence of the town, and so these fortifications became dilapidated. They also constrained the development of the town, because the gates were too narrow for the volume of wheeled traffic which needed to pass through them. Accordingly, they were taken down between 1774 and 1829, to permit the construction of new docks around the north and west sides of the Old Town. Their demolition began in 1776, and continued in stages into the 1820s. In most cases, the Walls were simply reduced to a set height, and were then buried beneath the upcast of the excavation of the new docks. This left only the South Battery standing on the west bank of the Hull, and The Citadel on the east bank.

The defences after 1700

The Citadel, although never completed as a fortress, continued in use variously as a barracks, supply-base and prison until its demolition in 1863–64. The North Blockhouse was largely demolished in 1803. The Curtain Wall was reduced to a set height. By 1699 the old South End Fort had been renamed the South Battery. It was renovated in 1709, and extended in 1728. In 1855 its site was sold for redevelopment. Improvements in naval gunnery and armaments by the 1850s meant that any defences for Hull needed to be located much further down the Humber Estuary. Accordingly, in 1864 a new fort was built some 10 km to the east of Hull. By 1914 the defences had been moved to the mouth of the Estuary.

Summary

As one of the most important ports on the east coast of England, Hull had a major strategic role as a supply base for English armies, particularly in their campaigns against Scotland. Consequently, its defence was a major consideration for the English Crown.

The medieval and later town defences of Hull were amongst the strongest in Yorkshire. From 1321–24 until 1776 the town was surrounded on three sides by a substantial Town Ditch and bank, later fronted by a circuit of brick walls incorporating numerous gates and towers; the fourth side, opening onto the River Hull and the town's waterfronts, was protected by a boom-chain slung across the entrance to the river. This

paper summarizes the historical and archaeological evidence for the defences on both banks of the River Hull.

### Zusammenfassung

Als einer der wichtigsten Häfen an der Ostküste Englands hatte die Stadt Hull eine bedeutende strategische Rolle als Versorgungsbasis für die englische Armee, besonders in den Auseinandersetzungen mit Schottland. Dementsprechend war seine Verteidigung für die englische Krone von zentraler Bedeutung.

Die mittelalterlichen und jüngeren Befestigungsanlagen von Hull waren die stärksten in Yorkshire. Von 1321/24 bis 1776 wurde die Stadt an drei Seiten von einem mächtigen Stadtgraben und Wall umgeben, später durch eine umlaufende Backsteinmauer mit zahlreichen Toren und Türmen verstärkt. Die vierte Seite, die sich zum Fluss Hull und dem Hafengebiet der Stadt öffnete, wurde durch eine über die Einfahrt des Flusses gespannte Hafenkette gesichert. Dieser Beitrag fasst die historischen und archäologischen Erkenntnisse zu den Befestigungsanlagen auf beiden Ufern des Flusses Hull zusammen.

Dr David H. Evans, FSA 17 Queensgate, Beverley HU17 8NN dave.evans50@outlook.com

#### l iteratur

Allison, Keith John: Fortifications; in: ders. (Hrsg.): The Victoria History of the County of York, East Riding, 1: The City of Kingston upon Hull (The Victoria history of the counties of England). London 1969, 412–418.

Brooks, F. W.: A medieval Brick-Yard at Hull; in: Jounal of the British Archaeological Association (third series) 4, 1939, 151–174.

Creighton, Oliver H./Higham, Robert A.: Medieval Town Walls: an archaeology and social history of urban defence. Stroud 2005.

de Boer, G.: The two earliest maps of Hull; in: Post-Medieval Archaeology 7, 1973, 79–87 und pls

Evans, David H.: The trade of Hull between 1200 and 1700; in: Gläser, Manfred (Hrsg.): Der Handel (Lübecker Kolloquium zur Stadtarchäologie im Hanseraum 2). Lübeck 1999, 59–97.

Evans, David H.: Excavations at the Beverley Gate, and other parts of the town defences of Kingston upon Hull; in: English Heritage (jetzt Historic England) 2015, aktualisierte Fassung: Archaeology Data Service (https://archaeologydataservice.ac.uk/archives/view/forthull\_he\_2018/downloads.cfm).

Evans, David H.: The origins and early development of Kingston upon Hull; in: Gläser, Manfred/Schneider, Manfred (Hrsg.): Vorbesiedlung, Gründung und Entwicklung (Lübecker Kolloquium zur Stadtarchäologie im Hanseraum 10). Lübeck 2016, 53–63.

Evans, David H.: The Fortifications of Hull between 1321 and 1864; in: Archaeological Journal 175, 2018, 87–156.

Foreman, Martin/Goodhand, Steve: The construction of Hull Citadel; in: Post-Medieval Archaeology 30, 1996, Heft 1, 143–185.

Gläser, Manfred (Hrsg.): Die Befestigungen (Lübecker Kolloquium zur Stadtarchäologie im Hanseraum 7). Lübeck 2010.

Howes, Audrey/Foreman, Martin: Town and Gun: the 17th-century defences of Hull. Hull 1999. Kanvon. John R.: Medieval Fortifications. Leicester/London 1990.

Saunders, Andrew: Fortress Britain: artillery fortifications in the British Isles and Ireland. Liphook 1989.

# Abbildungsnachweis

Abbildung 1, 2, 5 und 6: D. Evans Abbildung 3: © Hull History Centre Abbildung 4: © Hull History Centre

### Seite 25

Anmerkung 6: The Town had its own municipal brickyard. The accounts for this survive for many years between 1303 and the late 1430s; these were published in Brooks 1939.

4. Absatz, Nachweis Zitat: Sheahan 1866, 58.

## Seite 31

5. Absatz, Nachweis Zitat: Extracts from Richard Blome's account were published in Woodward 1985, 28 f.

### Seite 34

#### Literatur

Sheahan, James Joseph: History of the Town and Port of Kingston-upon-Hull. <sup>2</sup>1866 Beverley.

Woodward, Donald: Descriptions of East Yorkshire: Leland to Defoe (East Yorkshire Local History Society 39). Beverly 1985.

### Abbildungsnachweis

Abbildung 1: © Humber Archaeology Partnership and the author

Abbildung 2, 5 und 6:  $\mbox{\ensuremath{@}}$  The former Humberside Archaeological Unit; photo taken by the author