

**Deal to Walmer, the castles,
earthworks and bulwarks
of the Downs**

1538 – 1540

Version 8

by Jenny Wall (2022)

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Deal to Walmer, the castles, earthworks and bulwarks of the Downs (1538 – 1540)

1. Introduction

The castles or gun forts and other fortifications which were built along the coast between Deal and Walmer between 1538 – 1547 were a small part of a much larger programme of coastal defensive building commissioned by Henry V¹¹¹ during this period.

The decision to build or strengthen existing fortifications was in response to a perceived risk of invasion by the Holy Roman Empire in collaboration with the French and the Spanish following the Act of Supremacy of 1534, which severed England from Catholic rule from Rome.

The factors which contributed to the decision to build the Castles of the Downs can be summarised as follows:

- *The Kings Great Matter*: The failure of the marriage of Henry VIII to Catherine of Aragon (Aunt of Charles 5th of Spain & Emperor of the Holy Roman Empire) to produce a male heir.
- *The European Reformation*, a rejection of the authority of Rome and the Catholic faith with the associated political, economic, cultural, and social changes.
- *The Act of Supremacy (1534)* making Henry VIII supreme head of the Protestant Church of England, thus separating England from Catholic / Papal control. An action taken to enable his divorce or the annulment of his marriage to Catherine.
- *The Dissolution of the Monasteries started in 1535* as a response to the wealth and power of the catholic church and the refusal to annul Henry's marriage. The King ordered the disbandment of Catholic monasteries, priories, convents, abbeys, friaries and religious houses of a value of £200 or more (over 8000 persons displaced to the value of £200K). The materials and proceeds were used both for new buildings and in part to pay for military campaigns¹
- The unrest which stemmed from the above and previous wars between England, France and Spain which left England isolated, feeling vulnerable to invasion from the catholic powers of Europe and financially poor.

¹ The Castles of Henry V¹¹¹ by Peter Carrington ISBN 978-1-84603-130-4 Page 6. Circa 900 religious houses in England alone, one adult man in fifty was in religious orders (the total population estimated at the time was 2.75 million).

The building program was an integral part of wider activity to strengthen and reinforce England's navy and militia as well as its coastal defences. At least 42 sites² were identified around the coast of England and the resultant plan of works, the Henrician or Devise Forts, were built over a ten-year period. Other sites as in the north, Carlisle and Berwick on Tweed, parts of the French coast protecting English territory, and the Channel Islands also had existing coastal defences strengthened or new defences built during this period.

*'The Castles of the Downs'*³ as they were referred to, between Deal and Walmer included three masonry castles⁴, Sandown, Deal and Walmer Castles and four bulwarks placed at strategic intervals between them. In addition, a 2.5-mile (4.0 km) long defensive ditch and dyke system connected the masonry and earthwork forts together creating a continuous line of defence along the coast between Deal and Walmer^{5,6}. The bulwarks between the castles were named (starting at Sandown and working south), the Great Turf Bulwark, the Little Turf Bulwark and between Deal and Walmer Castles, the Great White Bulwark of Clay and the Walmer or Black Bulwark nearest to Walmer Castle⁷.

Existing records suggest the bulwarks were only manned for a few years. In 1553 new captains were appointed to the Great Turf, a Thomas Patche, and a William Oxenden to the White Bulwark⁸. Records also show that in 1558 the Little Turf had one gunner and the Great White bulwark had four gunners and 2 soldiers⁹. However, in 1547 some guns were moved to Dover and the bulwarks were described as "*defaced*"¹⁰. It is currently believed the bulwarks were abandoned by the late 1550's.

Pritchard in his 1865 History of Deal speculates that the naming of the Black bulwark (later renamed as the Walmer Bulwark) is derived from an apparent quantity of black stones on the beach at Walmer which he suggests were present when the bulwark was built¹¹. Others suggest the area may have been the site of an ancient river inlet resulting in peaty dark soil as the workers dug.

2 List of Devise Forts - Wikipedia

3 The History of the Kings Works. Volume 4 Pt 2 P.455 Edited by H M Colvin. London Her Majesty's Stationary Office 1982

4 Castles, derived from the Latin word castrum meaning fort

5 Ibid. The History of the Kings Works. P. 457

6 The Castles of Henry V111 by Peter Carrington ISBN 978-1-84603-130-4. Page 6

7 In a 1640 estate plan, the earthworks are named the 'Great White Bulwark of Clay' and the 'Blacke Bullwork'

8 S. T. Bindoff, The History of Parliament, The House of Commons, 1509-1558, Appen. A-C, Secker & Warburg, 1982, Pg. 69

9 United Service Journal, Naval and Military Magazine, Part II, Henry Colburn, 1837, Pg. 297

10 Ibid. The Castles of Henry V111. Page 54

11 History of Deal by Stephen Pritchard | Waterstones) (page 327)

Today the bulwarks are officially recorded as “Circular earthen bulwarks and linear trench or dyke system which linked Sandown (TR 3759 5430), Deal (TR 3777 5220) and Walmer (TR 3775 5010) Castles and built between 1539-43¹² . Two of the masonry castles, Deal and Walmer remain; the other five structures have been lost.

The author has explored the possibility that the bulwarks may have existed between Deal and Walmer prior to the building of the masonry Castles of the Downs.

In 1894 Charles Elvin wrote the history of Walmer and Walmer Castle¹³ and cites John Leland (1503- 1552), the Tudor bookkeeper and antiquary who is described as "*the father of English local history and bibliography*"¹⁴ . He recorded his travels in a work called *Itinerary* travelling in the area between 1538 and 1542. He described continuous banks or a fosse between Deal and Walmer as follows:

“A fosse or a great bank, artificial betwixt the town (Deal) and se, and runneth a great way up towards the clyfe surely the fosse is made to keep out our ennemyes ther or to defend the rage of the se or by the casting up beech and pebble”

The above quote is also used by William Ireland in *England's Topographer or A New and Complete History of the County of Kent - Vols 1-4* (1828) on page 672¹⁵

William Lambarde¹⁶ another English antiquarian again in the early 19th century, wrote that:

“Henry VIII, however, deemed the Bulwarks an insufficient protection for his Kingdom, and accordingly commenced the building of these and other castles in Kent and Sussex”

It is not clear that the above quote refers to the coastline between Deal and Walmer, there were certainly earlier bulwarks or blockhouses protecting Dover and Sandwich.

Edward Hasted the author of *The History and Topographical Survey of the County of Kent*¹⁷, originally published in 1800 refers to defensive structures on the foreshore. This account probably refers to what remained of the Tudor castles of the Downs by the time he wrote his account in 1800.

12 OS Map Grid Reference:TR37595430 Latitude 51.23840° Longitude 1.40228°<http://www.gatehouse-gazetteer.info/English%20sites/1606.html>

13 Records of Walmer together with “The three Castles that keep the Downs” Illustrated etc. Charles Robert S Elvin. British Library Historical Print Editions. Originally published by Henry Gray 47 Leicester Square London WC (1890) Page 32

14. A.L. Clarke, "John Leland and King Henry VIII", *The Library*, 3rd ser. vol. 2, pp. 132–49 (at 145). John Chandler comments on this and several similar 'paternity' claims: John Leland's *Itinerary*, p. xxi.

15. *England's Topographer or A New and Complete History of the County of Kent - Vols 1-4* W.H.Ireland page 672 Published by Geo. Virtue, 1828

16 https://en.wikipedia.org/wiki/William_Lambarde

17 *The History and Topographical Survey of the County of Kent* by Published by Edward Hasted W Bristow, Canterbury, 1800.
<https://www.british-history.ac.uk/survey-kent/vol10>

However, Hasted, does state:

“That prior to the building of the castle of the downs the coast was protected by a succession of earthworks at no great distance from each other, two of great importance known as the Great and Little bulwarks., situated in the parish of Walmer. From a rough drawing of the shore adjacent to Walmer castle which occurs in the domestic state papers of Charles 1st¹⁸, it seems that the former of these works, known as the Blacke Bulwark, must have been situated on a spot now occupied by Walmer Lodge, while the little or white bulwarke was about mid-way between this and Deal Castle somewhere near the site of the present life boat house” (page 157)

“ Even to the present day , upon the shore , in the vicinage of Deal, Sandown and Walmer , is a long range of earth heaps , where Camden, Lambarde, Dr Plot and others conceive the ship camp (referring to the Caesar landing(s)) may have been , and which the former of these writers states, was by the inhabitants in his time called “Rome’s work or the work of the Romans” , others however conceive them to be merely sand hills, collected there by the rigor of the weather” (page 677)

From a review of the written evidence, it remains speculative that two or more earth and timber bulwarks existed between Deal and Walmer prior to the building of the Castles of the Downs. It is certainly possible to suggest that earth and timber bulwarks would have been built first, affording the workforce some early protection from the sea, ease of access between the castles and some protection from the perceived risk of hostilities from across the channel.

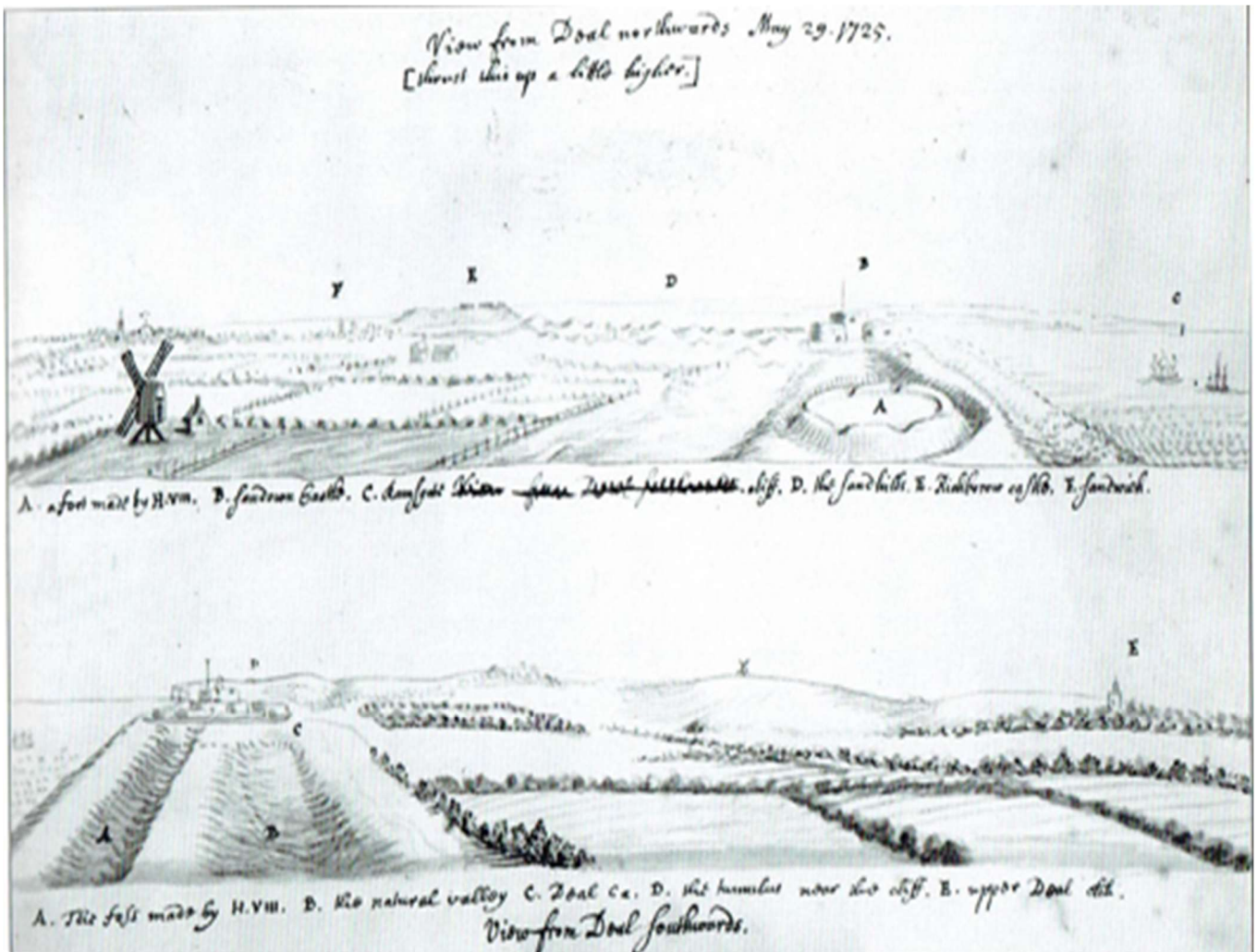
The Castles of the Downs complete with the four interconnecting bulwarks have been depicted on both maps and naval plans through time.

William Stukeley (1687-1765) an English antiquarian and first secretary of the Society of Antiquaries undertook extensive travels across England seeking archaeological sites during the 1720's. He made meticulous drawings of landscapes. He drew three sketches, later becoming copper plates of the Castles of the Downs which are reproduced in his work *Itinerarium Curiosum*¹⁹.

¹⁸ This author has been unable to find a copy of this drawing at the National Archives.

¹⁹ *Itinerarium Curiosum, Or, An Account of the Antiquity's and Remarkable Curiositys in Nature or Art, Observ'd in Travels thro' Great Brittan. Illustrated with Copper Prints. Centuria. I* published in London. Copies held for reference at the Society of Antiquarians London

Figure 1 – A prospect of Deal Castle by William Stukeley in 1725

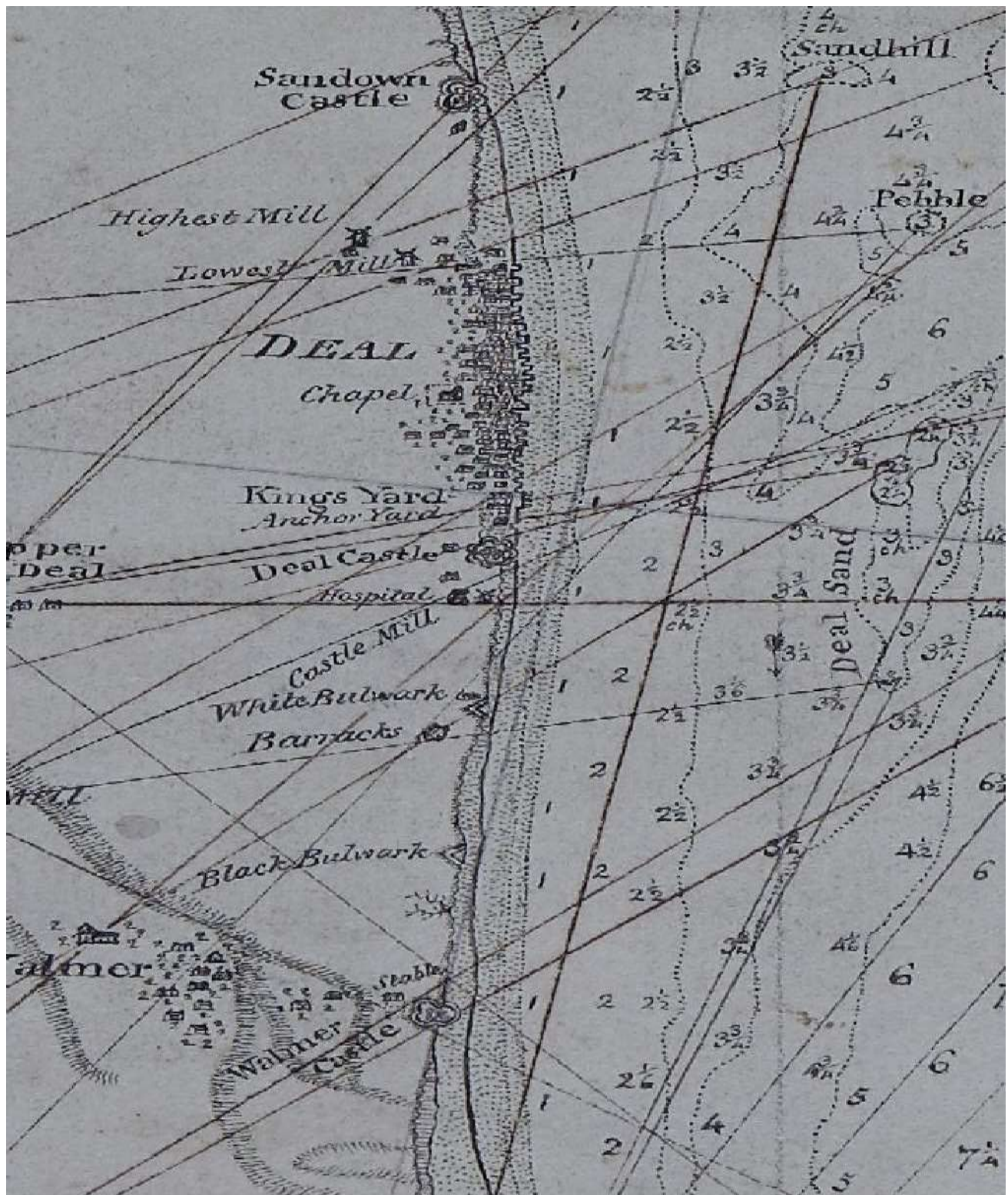


In figure 1 above A appears to be what remains of one of the bulwarks between Deal and Sandown castles. The drawing depicts the bulwark as round with apparent gun embrasures and a rear entrance. In the lower image the ditch and dyke system is clearly drawn running into the foreground.

The map overleaf entitled “The Downs” is from a survey by order of the Lords Commissioners of the Admiralty at the request of The Corporation of Trinity House by Graeme Spence 1795. This MS survey was reproduced for chart production by the draughtsman John Walker in 1797 from Spence’s very large and now fragile original²⁰. The original map was used for many years to produce naval maps apparently using the castles and bulwarks as trig markers.

²⁰ This copy was sourced from the UK Hydrographic Office www.UKHO.gov.uk. With my thanks to Ian Williams of Kingsdown. A further copy of the map with a later survey and different draftsman is available to view at Sandwich Museum

Figure 2 – The Downs a Naval map of 1795 showing positions of gun forts and bulwarks



During research another earlier map of the Castles of the Downs produced in France was found. A section of Carte du Completé de Kent et du Pas de Calais by Jacques Nicholas Bellin dated 1759 below shows Deal and Walmer castles and the Great White and Walmer bulwarks.

Figure 3 - Map of 1759 showing positions of gun forts and bulwarks



2. The building of the Castles and bulwarks of the Downs

*"The three castles which keep the Downs"*²¹ were a part of phase 1 of the building plan along the coasts and estuaries designed to oppose invasion from the sea²². In southeast Kent the geographic proximity to France and the safe anchorage in the Downs were perceived as particularly significant risks. By the 17th century the action of predominantly northerly currents along the English Channel (the longshore drift) had caused significant silting up of Sandwich and New Romney harbours. This subsequently facilitated the use of the Downs as a safe harbour along the eastern stretch of the English Channel until a new harbour at Ramsgate and the further development of Dover were achieved.

The Downs is the body of water, that stretches six miles out to sea between Deal and Walmer. To the north and south there are steep cliffs connected by low lying shingle beaches and out to sea the approximately 10-mile-long Goodwin sands. This local topography even today, affords ships protection from prevailing currents, storms and provides a safe deep safe anchorage²³.

The building of the Castles of the Downs was ambitious, collectively Henry V111's *Devise forts* was the largest building program since Roman or early saxon times. The total cost of building the defences of the Downs were recorded as £27,092 12s 3/4 d in *the charges of the Kings wars and fortifications*²⁴. Some of the materials used were recycled, namely stone and lead came from local dissolved religious buildings, including Caen Stone which originated from northern France. It is probable that a significant amount of the recycled stone came from St Radegund's Abbey near Dover. Other materials included local Kentish rag stone, thousands of pebbles with limestone chippings.

Work commenced on the castles of the Downs and the connecting ditches or dykes in 1539 and took less than 2 years to complete. During 1539 1,400 men were recorded as working on the defences²⁵. Following a strike in June 1539 each man earned 6d a day²⁶. By 11th

21 Deal and Walmer Castles Ministry of Public Building and Works Guidebook by A.D Saunders page 5 London 1963 Available at Deal Library call number 728.81-DEA Kent

22 There is some evidence, by way of old plans that earlier defensive buildings may have existed on the site(s) of the gun forts.

23 Ibid 21 Page 6

24 The History of the Kings Works. Volume 4 Pt 2 P. 457 Edited by H M Colvin. London Her Majesty's Stationary Office 1982

25 Ibid page 457

26 Ibid reference 22. page 11

September 1540, 300 men had been transferred to Calais²⁷ as the structures neared completion (Calais being part of England at the time).

Deal, the largest of the castles of the Downs, referred to as the great castle²⁸, was sufficiently finished by the winter of 1539 for a banquet to be held to greet Anne of Cleves, soon to be the King's fourth wife²⁹. The last recorded payment of the building workforce on site along the 2.5 miles of the defence fortification was 11th September 1540³⁰.

It is probable that the bulwarks were primarily built of earth with some use of wood³¹. Together with the connecting ditch or dyke system as previously discussed, may have predated the masonry castles, or built first³². It was also considered possible that the 2.5-mile ditch and dyke system incorporated a covered walkway³³. More recent research by English Heritage suggests this was unlikely. Certainly, the interconnecting ditch system would have afforded the workforce some shelter from the elements, a protected supply line. The final structures or Devise Fort would have provided a vital role in defence, communications, and logistics³⁴.

In the basement of Walmer Castle, the gatehouse and Rounds of Deal Castle wide use of recycled stone with remnants of monastic carvings are frequently visible.

Later editions to Walmer Castle by Lord Granville in the 1860's used stone from Sandown Castle which was by this time being sold off as building materials. What later remained of Sandown Castle was purchased by Deal Council for £35 in 1960's to form part of the local sea defences and latterly part has been transformed into Sandown Castle community garden.

²⁷ Ibid reference 23 page 458

²⁸ The History of the Kings Works. Volume 4 Pt 2 P. 459 Edited by H M Colvin. London Her Majesty's Stationary Office 1982

²⁹ Harrington, Peter (2007). The Castles of Henry VIII. Page 18. Oxford, UK: Osprey Publishing. ISBN 978-1-4728-0380-1

³⁰ Ibid 28 Volume 4 Pt 2 P. 458

³¹ Ibid 29 Page18

³² Ibid 29 page 16

³³ Ibid 29 page 16

³⁴ Further Henrician bulwarks were built between March 1539 and summer 1540 as part of the defences of Dover Harbour. One was originally known as the turf bulwark under Dover Castle it later became known as Moat's Bulwark after its second captain Stephen Moat.

Figure 4 - Postcard depicting Sandown Castle in 1872³⁵



Figure 5 - Sandown Castle Community Garden summer 2022³⁶



The next two pages make up a modern-day map illustrating the locations of the gun forts and bulwarks.

³⁵ Sold on eBay 2021 (date on the reverse)

³⁶ Sandown Castle community group Facebook Page

Figure 6 - OS of 2017 showing positions of gun forts and bulwarks.





Peter Harrington in his book entitled *The Castles of Henry VIII* ³⁷ offers some contemporary plates depicting the coastline with the three masonry castles of Sandown, Deal and Walmer and the four bulwarks with the 2.5-mile interconnecting ditch or dyke system. Harrington also reproduces copies of the other two original drawings by William Stukeley. One of the drawings is displayed on the northeast facing bastion at Deal Castle. At this spot, it is possible to see the flag of the Cinque Ports flying on Walmer Castle.

At a time when Deal and Walmer were geographically distinct towns with much smaller populations, fewer buildings, and trees; the new coastal defenses would have dominated the local landscape. On the wall in the upstairs corridor at Walmer Castle is an original drawing or estate plan drawn by C. D. Ernest, Colonel or Commander of the Royal Engineers during the middle of the 17th century. This illustration clearly depicts Deal and Walmer Castles with the Great White and Blacke or Walmer bulwarks positioned strategically between them.

It is known the bulwarks were first manned by October 1540, and were defaced and without guns as early as 1547³⁸ although they were not abandoned until the 1550's.

Several 'snapshot' records of pay rolls exist, for example in 1540, Walmer castle was staffed by a captain, a deputy, a porter, 11 gunners and 4 soldiers. The bulwarks each had a captain and 2 - 4 gunners ³⁶

3. The design of the Castles of the Downs

The design of Henry VIII 's Devise Fort between Deal and Walmer was heavily influenced by advancements in the use of gunpowder, the continued advances in firepower design and weapons of various sizes and ranges. These developments prompted changes in architectural thinking, which together with continental influences resulted in the early castles or forts having some distinctive characteristics.

The drawing overleaf is probably contemporary to the commissioning of the castles of the Downs³⁹ and demonstrates these design principles. The gun forts had very thick walls and a

³⁷ Harrington, Peter (2007). *The Castles of Henry VIII*. Page 16. Oxford, UK: Osprey Publishing. ISBN 978-1-4728-0380-1

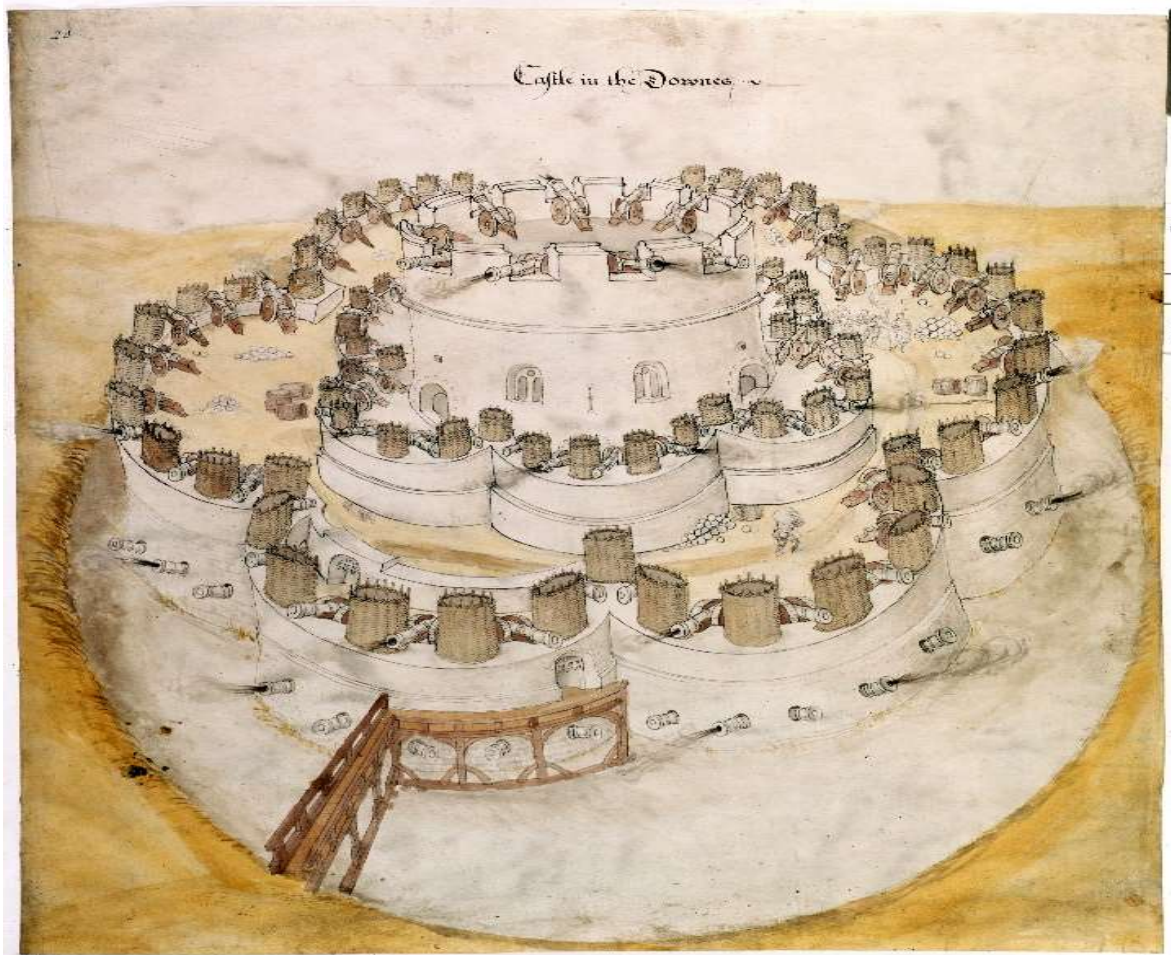
³⁸ Christopher Morris (Master of the Ordnance) Page 17 Harrington, Peter (2007). *The Castles of Henry VIII*. Oxford, UK: Osprey Publishing. ISBN 978-1-4728-0380-1

³⁹ Reproduced from https://en.wikipedia.org/wiki/Device_Forts. Originally Plate 34 *The History of the Kings Works*. Volume 4 Part 2 Edited by H M Colvin. London Her Majesty's Stationary Office 1982.

central tower or keep, with a spiral double helix staircase to all levels. The keep, in effect a defensive tower with multiple gun ports, was surrounded by a courtyard and varying numbers of half-moon shaped thick masonry bastions. These structures enabled the positioning of a range of artillery embrasures and gun ports at different heights. Curtain walls and inner courtyards provided access between the bastions. The buildings were designed to be 'squat' to the ground and in what was considered at the time modern fortification design. The collective firing placements on each gun fort and bulwark provided a 360-degree range and capability.

It was within the keep that the garrison was housed, and stores were kept. The gun forts all had gate houses with draw bridges over moats or ditches located on the landward side, strengthening the defensiveness from the sea.

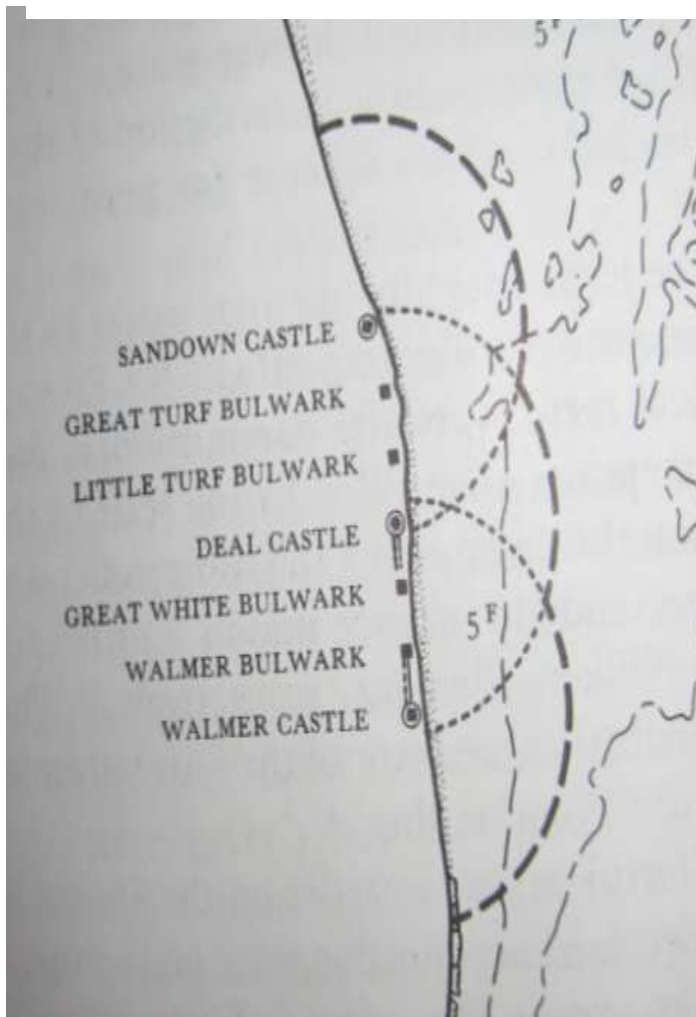
Figure 7 - An early draft of Deal Castle 1539 ⁴⁰



⁴⁰ "A Castle for the Downs" dated 1539, draughtsman unknown, pigments on vellum. An early draft of Deal Castle. British Library online gallery - <http://www.bl.uk/onlinegallery/onlineex/unvbrit/a/largeimage82806.html>

Between Sandown and Walmer Castles the fortifications were strategically placed along the coast at intervals which provided flanking arcs of fire power throughout the 2.5 mile stretch

Figure 8 - Design principles of “flanking arcs of defence”



of coastline⁴¹. The illustration below which is reproduced from a diagram on page 456 of the History of the Kings Works (1982) demonstrates the design principles of “flanking arcs of defense”. There were many different people who influenced and contributed to the design and building of the castles and bulwarks.

In the History of the Kings Works⁴², printed in 1982 two individuals are named as the commissioners and overseers of the castles of the Downs and the connecting ditches, Sir Edward Kyngeley and Thomas Wingford, the latter the first captain of Deal Castle. A German architect called Stefan von Haschenperg is known to have actively been involved and on site during the construction of the four bulwarks in

1539. Two master masons called Christopher Dickenson and William Clement are named in the records as being active on the site and others along the coast. Albrecht Durer and Sir Christopher Morris are two further architects or designers whose work is discussed in the literature as having maybe influenced fortification design at the time.⁴³ It is also discussed that the design teams were heavily influenced by the design of the royal palaces, such as Hampton Court. Furthermore, the early design, as built in Deal, Walmer and Sandown Castles was not widely replicated as advancements in defensive fortifications prompted a rethink in building design, introducing angular bastions and other innovations.

⁴¹ See figure 7 for the positions of the bulwarks

⁴² The History of the Kings Works. Volume 4 Part 2 Edited by H M Colvin. London Her Majesty's Stationary Office 1982

⁴³ Harrington, Peter (2007). The Castles of Henry VIII. Page 12 – 17. Oxford, UK: Osprey Publishing. ISBN 978-1-4728-0380-1

4. What remains of King Henry VIII's Castles of the Downs?

Two of the three masonry castles of the Downs remain today, namely Deal and Walmer Castles, both now managed by English Heritage and open to the public. Deal Castle remains one of the finest preserved early Tudor artillery gun forts in England whose captain in the 21st century is the Commodore General of the Royal Marines. Walmer Castle demonstrates a journey from a military gun fort to a modern-day residence in its continuous capacity since the early 18th century as the official residence of the Lord Warden of the Cinque Ports.

Figure 9 - Aerial photograph of Deal Castle



Figure 10 - Aerial photograph of Walmer Castle



courtesy of www.english-heritage.org.uk

In recent times and resulting from the collation of information from the local authority archaeology and heritage reports⁴⁴, old maps, drawings and with the addition of some possible indications on the ground it has been possible to record the locations of the four bulwarks of the Downs which were 700 meters apart⁴⁵.

⁴⁴ [https://www.dover.gov.uk/Planning/Conservation/New-Heritage-Strategy-pdfs/DDHSAAppendix1Theme11\(web\).pdf....](https://www.dover.gov.uk/Planning/Conservation/New-Heritage-Strategy-pdfs/DDHSAAppendix1Theme11(web).pdf....)

⁴⁵ Dover District Council, 2013, Dover District Heritage Strategy (Bibliographic reference). SKE31372.

It is likely that the location of the Great White Bulwark was near the modern day lifeboat station and bandstand where three semi-circular banks or mounds remain: ([Deal](#) [51°12'44"N 1°24'02"E](#)[51.212342°N 1.4005788°E](#) [TR376514](#))

Similar 'evidence' exists for the Black Bulwark, where a raised rectangular area just next to Borrow Pit Car Park CT14 7HL remains: ([Walmer](#) [51°12'22"N 1°24'00"E](#)[51.206059°N 1.4001156°E](#) [TR376507](#))

The exact locations of the Great Turf Bulwark (Kent Historic Environment Record (KHER) Number TR 376 536) and Little Turf Bulwark (TR 376 529) between Sandown and Deal is more uncertain and therefore more speculative.

The possible location of the Great Turf Bulwark is: [51°13'56"N 1°24'07"E](#)[51.232089°N 1.4020357°E](#) [TR376536](#)

And the possible location of the Little Turf Bulwark is: [51°13'33"N 1°24'06"E](#)[51.225806°N 1.4015720°E](#) [TR376529](#)

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