

## BRICKMAKING ON NORFOLK COMMONS

by Robin Lucas

### SUMMARY

*In periods before the 19th century, when access to land for industrial purposes was restricted and when bricks were burned with wood and other vegetal growth, commons and wastelands provided clay and firing fuel for the making of bricks.*

When deeds of the 17th and 18th centuries mention brickyards, frequently they also refer to commons or wastes in their vicinity. In a conveyance dated 1651 of a copyhold comprising a cottage and two acres in the parish of Holt the property was stated to be situated on Foster's Green and next to the 'tylekill'. The 'tylekill' was a contemporary reference to what otherwise would be called a brick-kiln. To the new owners as tenants of the copyhold went 'the liberty to take earth and make bricks'.<sup>1</sup> In a conveyance dated 1652 of a messuage and four-and-a-half acres in the parish of Thompson, the property was stated to be situated near the Common and 'called by the name of the Clamps'. A 'clamp' is the word used to describe a temporary brick-kiln. The purchaser was Edmund Dexter, brickburner of Thompson.<sup>2</sup> In a conveyance dated 1785 a brick-kiln and two acres by the Croxton Road on the outskirts of Thetford were described as abutting on the heath and lands of Lord Petre. The brick-kiln is known from papers which accompanied the conveyance to have been in existence in 1748; the purchaser, who was previously the tenant, was Henry Roberts the younger, bricklayer of Thetford.<sup>3</sup> These conveyances concerned modest parcels of land. A conveyance dated 1739 referred to the manors of Langley, Buckenham and Hassingham and included in the package was 'All that Brick Kiln Situate upon Hassingham Common with liberty of digging Brick and Tile Earth there'.<sup>4</sup> A conveyance dated 1774 referred to lands in Edingthorpe, Bacton, Paston and Witton and mentioned the 'Kiln Pightle' that was sited on Edingthorpe Heath.<sup>5</sup> The discovery of brickmaking sites such as those at Holt, Thompson, Thetford, Hassingham and Edingthorpe located either on or adjoining lands which were, before the enclosures of the 18th and 19th centuries, commonland, opens the question as to how frequent this practice was and what gave rise to it.

There are a number of indications that the association of brickmaking with commons was not unusual, although no statistics can be produced to quantify that association. Commonland included lands called commons, greens, heaths, moors and fens. There were, of course, private heaths, moors and fens which were not commonland. The most serviceable evidence for the association of brickmaking with commons is provided by maps. Where the brickmaking took place on the commons themselves the resulting clay pits may be shown on maps. Freethorpe was, in the 18th century, noted for its brickmakers and in a map of the parish dated 1827 the commons were shown riddled with clay pits.<sup>6</sup> Pits also proliferated on the Neatherd Moor in East Dereham, as shown on the map which accompanied the tithe apportionment of 1838.<sup>7</sup> Where the brickmaking took place adjacent to commons there is similar map evidence, although in these cases the clay pits will be found to exist on the edge of commons. This was the situation in East Tuddenham where the inclosure map of 1804 showed William Vassar's clay pits sited on the edge of what had, until that date, been commonland.<sup>8</sup> The depiction of clay pits on maps was never consistent; even when it did occur, there seldom came with it proof that the pits were

dug for the making of bricks and tiles.<sup>9</sup> The pictorial evidence of maps has, therefore, to be viewed critically.

But pictorial evidence is not the only evidence provided by maps. Without showing clay pits maps can still, by other means, reveal the former existence of brickyards: this was done through field names, either written on the maps, themselves, or more commonly in accompanying schedules. The examination of field names as recorded on or with maps constitutes another way, therefore, by which maps can be used to trace the proximity of brickyards to commons. The name 'Brick Kiln Piece' was given to the site of the brickyard adjoining Letton Green in Isaac Lenny's map of the estate of Brampton Gurdon Dillingham in 1783.<sup>10</sup> On a map accompanying the survey of the Houghton estate made by Joseph Hill in 1800, fieldnames reveal the existence of a brickyard on the eastern edge of Massingham Heath.<sup>11</sup> In a map of the estate of Sir John Lombe and dating from the early 19th century the brickyard leased by William Ketteringham in the parish of Hoe, north of East Dereham, was shown next to Stunton [Stanton] Heath.<sup>12</sup> This was the likely site of the brickyard which in 1543 had provided paving tiles for use in the parish church of North Elmham.<sup>13</sup> Maps drawn up in connection with the Tithe Apportionment Act of 1836 provide numerous examples, through the names of fields recorded in the schedules, of brickyards situated adjacent to former commons. This was, for example, the case at Banningham,<sup>14</sup> Brisley (Harper's Green),<sup>15</sup> Edingthorpe Green,<sup>16</sup> Swardeston (Hall Green),<sup>17</sup> North Walsham (Spa Common)<sup>18</sup> and Welborne,<sup>19</sup> and at all six sites there still survive the clay pits.

The maps show that brickmaking either on or by the side of commonland was unexceptional and, indeed, frequent. Archaeological evidence could be adduced to convey similar information and this, as well as map evidence, would suggest that the position in other brickmaking counties was not widely different.<sup>20</sup> Although it might be assumed from the frequent association of commons and brickmaking sites that there was an association between the two, for that association to be seen as more than coincidental there would need to exist plausible explanations as to why brickmaking should have taken place either on or next to commonland. There are, in fact, two adequate explanations. The first is that the commons provided clay for brickmaking. The second is that the commons provided firing fuel.

The fact that the commons provided clay for brickmaking is evident in at least some of the pits which were excavated. The information derived from maps can be supplemented by recorded observation, such as that found in the Norfolk *Memoirs of the Geological Survey of Great Britain* published in the last quarter of the 19th century. Described are the brick pits on Croxton Heath,<sup>21</sup> Fakenham Heath<sup>22</sup> and Broom Green in North Elmham.<sup>23</sup> The winning of clay from the commons took place over wide areas of the country. An order made in Liverpool in 1693 directed:

That all persons allowed to get marl to make bricks from the common, shall dig to the bottom of the clay and marl and make the ground level before they carry off their bricks.<sup>24</sup>

Given that clay extraction was practised on commons, the question is: why should the commons be regarded as an appropriate quarry for clay? The principal function of commonland in the manorial set-up was to provide pasture for livestock but a lesser function was the provision of building materials (*house-bote*), including clay, to serve the personal needs of commoners.<sup>25</sup> It must have seemed a not unreasonable extension of manorial practice to include, with the mining of clay, the burning of bricks made from the same. The customs of the manor of Woodhall and Cantelose, as recorded by Francis Blomefield before the mid 18th century, included the 'liberty of digging white and red brick earth on the commons'.<sup>26</sup> Manorial custom restricted the

extraction of clay to commoners for use on their own residences. It can be imagined, however, that once the practice of making bricks on the common was initiated, those burning the bricks came to burn them for others as well as themselves, and the number of those burning came to include persons who were not commoners but who made and burned bricks simply for sale. Commoners in possession of copyholds and freeholds and wishing to make their own bricks could dig the clay from their own lands but some, no doubt, preferred to pit the commons rather than create hazards and obstacles in their own holdings.

The winning of clay was, therefore, one reason for the making of bricks on commonland, both for the brickmaker who was a commoner and had land and for the brickmaker who was not a commoner and had no land. This does not explain, however, why some brickmaking sites adjacent to commons did not take the clay they required from the commons but, as surviving pits indicate, from adjacent lands. Here, it must be supposed, what was taken from the commons was not clay but firing fuel for clamps or kilns. Like clay, firing fuel could be taken from the common for domestic purposes (*fire-bote*):<sup>27</sup> as with clay, the custom of the manor was extended so that firing fuel was taken for non-domestic purposes. One difficulty, which all brickmakers must have encountered before the use of coal, was the acquisition of sufficient firing fuel. It would have made sense, therefore, for brickmakers who could foresee their need of the waste of wood and heathland to site their yards accordingly. Firing fuel included, besides wood faggots, lyng (heather), furze or whins (gorse), turf and peat, most of which could be obtained from commonland.<sup>28</sup> The practice of gathering industrial fuel from the waste was observed by the Swedish visitor Pehr Kalm who, during travels in Essex in 1748, recorded the cutting of bracken and furze on Ivinghoe Common and its use in brickmaking.<sup>29</sup> A report in the journal of the Hampshire naturalist Gilbert White on the wet autumn of 1792 noted that 'The brick-burner can get no dry heath to burn his lime, & bricks...'.<sup>30</sup>

Evidence that brickmakers did take clay and fuel from the commons is found most readily in manorial licences and manorial punishments of offenders. Whatever sanction use may have given to the practice, the removal of clay and firing fuel from the commons could be considered an offence against the laws of commonage. The law was determined by the custom of the manor but in many manors, and perhaps the majority, freedom from indictment could only be obtained with the grant of a licence from the manorial lord, often acting in concert with the homage or body of copyholders. Licences would have been granted from the medieval period onwards but the bulk of surviving documentation dates from much later. With their lease from Sir Arthur Capell, in 1626, of a 'brickkill' and eight acres of land in South Wootton Edmund Hamond and William Ditcher also obtained the right 'to take sweepage and brakes upon the commons and pasture'.<sup>31</sup> In 1734 Robert Edrich sought leave from Mrs Norris to make use of a kiln on the common at Barton Turf.<sup>32</sup> In 1735 Martin, a brickmaker, negotiated a licence with Cyril Wyche of Hockwold through the mediation of Dr Browne of King's Lynn.<sup>33</sup> In 1766 William Tooke, the lord of Thompson, granted licence to his manorial tenants and inhabitants of the parish 'to dig soil upon the waste thereof to make brick for the use and benefit of the s<sup>d</sup> Parish at the yearly rent of 2s/6d payable to the Lord at Mich'.<sup>34</sup> From 1781 to 1808 Samuel Blogg, bricklayer and general builder, enjoyed the right to remove gravel from Mousehold Heath north of the city of Norwich by virtue of an annual payment of two guineas to the Dean and Chapter of the Cathedral:<sup>35</sup> since Blogg was also a brickmaker<sup>36</sup> it may be supposed that he took the clay as well.

Unlicensed brickmakers and others, removing either clay or firing fuel, faced prosecution. Winifred Blaxter and Richard Sheake were each fined ten shillings for having 'broken the soil

on the heath called Musholde [Mousehold] by a general court of the manor of Pockthorpe held on 8 November 1683.<sup>37</sup> In 1767 further fines were levied in the same court for the same offence.<sup>38</sup> At Pentney a court leet meeting in 1680 instituted a fine of five shillings the hundred for cutting flags from the common and five shillings 'for digging clay and leaving holes out of which cattle cannot get'.<sup>39</sup> The penalty enforced on brickmakers by the court leet of Swaffham in 1736 was, for removing a load of furze from the common, ten shillings the load.<sup>40</sup> John Fox was fined ten shillings for removing turfs from the fen on Horsford Common in 1757.<sup>41</sup> A variety of persons were fined by the manor court of Thompson in 1764, 1769 and 1770 for cutting down and removing from the common timber and furze; the most serious offender was Matthew Barker, brickmaker of Shropham, whose amercement was recorded as being £1 6s 8d.<sup>42</sup> Manorial presentments for illicit brickmaking on the commons have been recorded for other counties and two examples for Lincolnshire, dated to 1649 and 1718, are mentioned in Maurice Barley's *The English Farmhouse and Cottage*.<sup>43</sup> David Whitehead's account of brickmaking in the west Midlands shows 17th-century brickmakers on Malvern Chase were prosecuted in the Worcester Court of Quarter Sessions.<sup>44</sup> Molly Beswick's study of brickmaking in Sussex contains the most detailed examination so far to be published concerning licensed and unlicensed brickmaking on commonland during the 16th and 17th centuries. It would seem that over the course of time the status of a fine for the improper use of the commons of the Weald came to resemble, if not to constitute, a licence fee.<sup>45</sup>

It is difficult to know how effective manorial law was in Norfolk in the control of brickmakers who took clay and firing fuel from the commons. The documentation concerning Mousehold Heath provides examples both of the law's enforcement and its disregard. This once-vast heath measured  $22\frac{3}{4}$  miles in circumference<sup>46</sup> and spread into sixteen parishes, falling within a number of manorial jurisdictions.<sup>47</sup> When in 1586 Edward Paston and Miles Corbett, lords of the manors of Thorpe and Sprowston respectively, defended enclosures made by them on the heath, an interrogation was conducted in the Court of Exchequer concerning the deposition:

that the inhabitants of . . . Blofield Randworth cum Panxforth WoodBastwick Wrexham cum Salehowse Lyttle Plumstead and all the towns bordering or adjoining upon Mushold als. Freemushold Heath have at their wills and pleasures dygged earth in Mushold al. Freemushold Heath without interruptions or denial of any person or persons and thereof have made dyvers clamps of brycke and converted the same to their own uses.<sup>48</sup>

The use of Mousehold Heath, or the larger eastern part of it, for brickmaking continued into the 18th century and in 1709 there was advertised in the *Norwich Gazette* the lease of a farm at Little Plumstead with brick- and tilekilns and a sheepwalk for 600 sheep. The farm was adjacent to the heath on which the sheepwalk was situated.<sup>49</sup> Almost certainly the kilns occupied the same ground as the 'Brickyll and Potters Pits' sited at Little Plumstead according to the map drawn up in 1586 in connection with the legal action concerning Mousehold Heath.<sup>50</sup> At Woodbastwick there was a brickyard whose location was said to be 'on Mousehold' on the two occasions in the second half of the 18th century when its wares were advertised.<sup>51</sup> The most westerly part of Mousehold Heath came within the limits of the parish of Thorpe and the jurisdiction of the manor of Pockthorpe. Despite intermittent action by the Dean and Chapter to demonstrate their ownership of the ground as was shown earlier, brickmaking also continued to be practised here and, because the heath was not enclosed, to a much later date. The rolls of the manor court of Pockthorpe from 1837 to 1865 show no serious attempt to control the heath.<sup>52</sup> In the year 1800 the Dean and Chapter were, by the Thorpe inclosure award, allotted an additional 477 acres previously in the manor of Thorpe and including 131 acres forming part of the Lathes Foldcourse.<sup>53</sup> It was to be within the area of the Lathes Foldcourse that brickmaking was to become a substantial local industry, conducted with vigour from the late 1840s until 1883. In

one year, 1871, twelve brickmakers, some of them working in pairs, were responsible for making 800,000 bricks on the heath.<sup>54</sup> Their business was brought to a close by an action instituted against them in the High Court of Justice by the Corporation of Norwich who had, in 1880, purchased the land for open public space.<sup>55</sup> The argument of the inhabitants of Pockthorpe was that the status of the heath as commonland gave them the right to excavate clay, to burn bricks and to sell them. Ironically, had the inhabitants put forward the case that Mousehold Heath was not commonland but land possessed by a permanent body acting on their behalf, they might have won the case.<sup>56</sup> As it happens, the failure to do so prevented the heath from developing into a general industrial site and preserved the last fragment of the great open moor it had once been.<sup>57</sup>

Although brickmakers and others may have infringed the law of commons they must have done so on many occasions with the connivance of the lord of the manor, who had interests in the product either because of his own needs or because it would yield some income. Lords of the manor had rights to the soil and underwood and therefore liberty to exploit the mineral and vegetal resources of commonland, although there was an expectation that they would consider the interests of their copyhold tenants in all matters affecting commons. It may be imagined that habitual failure to consult commoners would have led to the disrespect of the law by all parties. There is substantial evidence that lords of manors did at times exploit the commonland to their own advantage, in their promotion of brickmaking activity on the commons or in sales of clay or firing fuel to independent brickmakers. Whatever the concern of manorial lords for the custom of the manor and of commoners' interests, they themselves had a strong material interest in guarding the profits derived from commons and checking the activity of interlopers. At the time of the inclosure of the parish of Thompson in 1815 the then lord, Colonel William Tooke Harwood, emphasized in a printed statement that:

He claims ... the sole and exclusive Right of digging, taking, burning on the Common, or carrying away Clay and Marl and Brickearth, for all manner of purposes, as well as the exclusive Right of making and burning Bricks, Tiles and other Ware herewith or therefrom, upon the said Commons, for public Sale or private Use. ... And ... the like Right for the supply of fuel for his Brick-kiln, over the whole of the said Commons of Thompson.<sup>58</sup>

Colonel Harwood's claim was, as it happened, disallowed by the commissioners of inclosure, not because he was misinterpreting manorial law but because others shared the seigneurial rights. Harwood is an example of a lord who directly participated in brickmaking on the commons for he did, following his uncle William Tooke who had been lord at Thompson before him, operate a brick-kiln on the heath close to the Watton Road. The bricks were moulded of clay and fired by furze, both of which were taken from the common.<sup>59</sup> There were other lords who maintained brickyards which consumed both the clay and vegetation of the commons. The same Edward Paston who in 1586 had to defend his depredations before the Court of Exchequer was known to have promoted brickmaking on Mousehold Heath for a map made in 1624 of that part of the heath coming within the parish of Thorpe noted the site of 'The Brickkill of Edward Paston Esquire' on the Lathes Foldcourse.<sup>60</sup> The City of Norwich claimed rights in Mousehold Heath and in 1626 the Mayor's Court authorized the development of a second brickyard within the area of the 'Stone Mynes' where Paston's kiln was located.<sup>61</sup> A kiln may have remained in use on this site until 1753, in which year the building committee for the new Presbyterian Octagon Chapel in Norwich were considering using bricks from the 'Mushold kiln'.<sup>62</sup> As already noted, there was a brick-kiln on Hassingham Common whose owner was the manorial lord. The new squire of Langley, George Proctor, took over the kiln in 1739 but did not, it appears, keep it in use.<sup>63</sup> Lords who viewed the waste as a source of firing fuel included William and Ashe Wyndham. For some twenty years before 1700 and for some twenty years after they

supplied the kiln at Felbrigg with furze, lyng and flags gathered not only from Felbrigg Heath but also, as is shown in financial accounts for 1705, from Aylmerton Common. In 1713 the brickmaking itself moved on to the heath, at a time when the regular kiln was undergoing repairs. In some years the Felbrigg brickyard burned 200,000 bricks with fuel gathered from the waste.<sup>64</sup> Such output was to be surpassed within a few decades by brickyards which served the Holkham estate and where, in the 1750s, production totals varied between 550,000 and 700,000 bricks in a year. Here the principal construction project was the new hall, raised between 1734 and 1761, and the 'country accounts' show that furze or whins cut from the heath were a regular fuel at the kilns used to make the bricks.<sup>65</sup>

The instance of brickmaking on Mousehold Heath is an example, but perhaps the only example, of the persistence of brickmaking on commonland or on land of similar status in the second half of the 19th century. To all intents and purposes brickmaking on commonland was by then a feature of past land use. It might reasonably be argued that the reason for the discontinuance of brickmaking either on or adjacent to commonland was informal as well as parliamentary inclosure which converted common land into private land and destroyed the heath and the marsh. In 1797 there remained, as shown by William Faden's map of Norfolk published in that year,<sup>66</sup> substantial tracts of land described as commons or heaths which had been assessed but one year before by Nathaniel Kent as measuring about 80,000 acres.<sup>67</sup> By the time the government survey *Return of owners of land* was published in 1873 its extent had diminished to 12,869 acres.<sup>68</sup> The extinction of the commonland did, however, have but marginal bearing on the discontinuance of the use of commons for brickmaking. The fact that numerous brickyards by the side of commons (Edingthorpe, Hoe, Little Plumstead, East Tuddenham and Welborne are examples) survived inclosure does indicate that the association of brickmaking with commons was at an end before the inclosure took place and that brickyards were drawing their materials from elsewhere. Brickmaking as it was practised through the 16th, 17th and much of the 18th centuries was in response to a limited and spasmodic demand for bricks that did not require clay pits of great size or depth<sup>69</sup> or exhaust the supply of shrub growth from the commons. Brickmakers would manage their modest production in clamps and avoid the expense of raising permanent kilns. In these circumstances the commonland afforded a little or no-cost source of clay and firing fuel that was adequate for the purpose and the brickmaker made minimal investment in a site which could never be his own. But from the mid 18th century onwards, and coinciding with a rise in population and agricultural profits, there was a much increased demand for brick and tile.<sup>70</sup> Increased output in conditions that were otherwise unchanged could only mean the extraction of more clay and firing fuel from the commonland. This would have raised the required level of exploitation to a point which may, in some parishes, have been neither socially acceptable nor materially achievable.

So much is surmise. What is not surmise is that from the mid 18th century onward brickmakers who could afford the investment and had the land to make it possible built kilns on their own land. Kilns required less fuel than clamps and produced bricks of a more consistent quality and colour: they also had the ability to fire roof-tiles, which were now also in greater demand than previously.<sup>71</sup> The use of kilns did not, in itself, destroy the association of brickmaking with commonland but their use must, in some measure, have lessened the proportion — if not at first the amount — of brick being produced on commonland. It could not be imagined that many brickmakers who were converting to the use of kilns would have ventured their capital in the erection of expensive structures on land they did not own and where their occupation could be terminated without redress.

The use of kilns for firing would have undermined the association of brickmaking with commonland. A second development, which was virtually to destroy that association, was the adoption of coal for firing. The advantage of coal was that it was easier to handle than wood and produced more heat for its bulk. A kiln of 20,000 bricks could be burned with 8 to 10 tons of coal as opposed to 20 one-ton cart-loads of wood.<sup>72</sup> The use of coal could mean less outlay on local transport and on time spent fuelling the burn.<sup>73</sup> Whether it was because commonland firing materials were proving inadequate or whether it was because the advantages of coal, now easier to obtain through improved means of transport, were coming to be more fully appreciated, the reasons why Norfolk brickyards should have converted from wood- to coal-firing cannot be determined. Undoubtedly the volume of wood fuel demanded by the kilns at Burnham Thorpe and elsewhere which served the Holkham estate must have been enormous, requiring seldom less than 600 one-ton cart-loads of wood fuel a year throughout the 1750s when brick production there was at its peak.<sup>74</sup> What is clear is that the firing fuel did change from wood, for the most part, at the beginning of the 18th century, to coal, for the most part, at the end of the century.

Coal could be used in either clamps or kilns. In 1701 Sir Nicholas L'Estrange, an early convert to coal-firing, built for estate use a coal-fired kiln at Hunstanton.<sup>75</sup> John Gathercole's carriage accounts for the Houghton estate reveal that in 1733 152 loads of coal were, for limeburning and other purposes, taken from the brick-kiln, suggesting that the coal was stored there principally to fire the kiln.<sup>76</sup> Coals were presumably in use at Eaton in 1743 for in that year a quantity of coal was stolen from the brick-kiln.<sup>77</sup> Bricks for Holkham Hall were fired by coal in clamps in the Burnham salt-marshes in 1747 and 1748 and again in 1755 to 1758.<sup>78</sup> A coal-fired brick-kiln was operating at North Walsham in 1766,<sup>79</sup> another at Heacham in 1775-6.<sup>80</sup> A brickyard in Banham that was being sold in 1778 contained one kiln fired by wood and another by coal.<sup>81</sup> The kiln at Langley was fired with turf in 1772, but coal was used in 1780.<sup>82</sup> In 1792 the Peterstone brick-kiln at Burnham Thorpe was fired with wood but ten years later it, too, was being fired with coal.<sup>83</sup> In the years 1802-05 the Islington estate of the Bagge family made regular purchases of coal to fuel clamps on the Smeeth and again in 1823 for the burning of bricks at Clenchwarton.<sup>84</sup> At much the same time Sir Thomas Hare was paying two shillings a load for the carriage of a chaldron of coal (weighing about 27 *cwt*) from the staithe at Stow Bridge to his brick-kiln in Stow Park.<sup>85</sup>

The increased use of kilns and of coal to fire them and clamps, where clamps remained in use, removed what benefits there were to be derived in brickmaking activity from the commonland by landowners and independent brickmakers. As a consequence of the disappearance of commonland brickmaking the only brickmaking enterprises which were, in quantity, to use materials derived from the land for firing were those sited within and operated directly by large estates, where heathland and woodland trimmings from the estate could be acquired for no cost other than the labour of gathering.<sup>86</sup> Not a few estates of the 19th century, in line with the advice of the land-agent John Wiggins, sited brickyards within plantations to make the task of fuelling brick-kilns that much easier.<sup>87</sup> It can be imagined that independent brickmakers who were also farmers turned hedge trimmings and other combustible matter derived from their lands to use in the burn, but this material could not sustain the fire, let alone support a whole season of firing. The conditions for commonland brickmaking were changing in the middle years of the 18th century but it must still have occurred, where the commons survived and where other circumstances would allow it. Brickmaking on the commonland now took place from time to time as a non-recurring and exceptional practice, such as when bricks were required for the building of the Rollesby House of Industry in 1776-7<sup>88</sup> or the parsonage house at Castle Rising

in 1809.<sup>89</sup> In these cases arrangements were made to make and fire bricks on the common. The general argument stands that the demise of brickmaking either on or next to commonland was a development which occurred before the inclosure movement destroyed the greater proportion of commonland.

In historical perspective, the county's commonland and waste may be seen as providing a resource for the manufacture of bricks at a time when other resources, in the form of rented land without controls and fuel that could be purchased at economic costs, were not available. The exploitation of the commons in Norfolk and other counties created a source for bricks. The making of bricks on commons must, in many cases, have been in contravention of manorial law. It was, no doubt, a recognition of the value of such activity that when the Parliament of Elizabeth I legislated against the building of cottages with less than four acres of land in 1589 the Act specifically exempted dwellings intended for those employed in mineral extraction and the manufacture of bricks and tiles.<sup>90</sup> The Act set aside the earlier Act of Edward VI, passed in 1549, which permitted dwellings on the waste with a curtilage of less than three enclosed acres,<sup>91</sup> a measure which had made it possible for brickmakers, as husbandmen, to settle on commonland.

For the brickmakers, themselves, exploitation of commonland resources afforded the opportunity to operate as artisan producers and to free themselves from the contractual arrangements by which they were bound to single employers. It was, no doubt, only on commonland where manorial lords did not oppose the activity or where manorial law was laxly enforced that brickmakers could gain settlement. For the majority of brickmakers their status was moving in a different direction as, through the 17th and 18th centuries, they changed from contractors to waged journeymen with little or no security of employment.<sup>92</sup>

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- 1 Conveyance from John Woodes, senior, to Robert and Clemencia Symonde of a property in Holt, 1651 (NRO, MC 126/2, 601 X 3).
- 2 Conveyance from Thomas Page, junior, and his wife Mary to Edmund Dexter of a property in Thompson, dated 26 April 1652 (NRO, Merton estate papers, WLS XX/4/1, 411 X 9). For a description of the function of clamps see: Robin Lucas, 'The example of Norfolk in the English brick-trade: a collection of historical studies' (2 vols., PhD thesis, University of East Anglia, 1993), vol. 1, pp. 163-5.
- 3 Conveyance from Philip Ryley Taylor and others to Henry Roberts the younger of a property in Thetford, dated 12 October 1785 (NRO, MC 114/1/33, 583 X 1).
- 4 Conveyance from Thomas Bramston and others to George Proctor of the manors of Langley, Buckenham and Hassingham, dated 19 April 1739 (NRO, Langley estate papers, BEA 9/3, 433 X 5).
- 5 Conveyance from George Anson to John Norris of lands in Edingthorpe, Bacton, Paston and Witton, dated 26 & 27 September 1774 (NRO, Kimberley and Witton estate papers, KIM box 19/1).
- 6 Plan of the parish of Freethorpe, Norfolk, by Pratt & Warren, Surveyors, 1827, 28 inches by 24 inches (NRO, Tillet collection [uncatalogued]). The commonland of Freethorpe, recorded as measuring 34 acres in William White, *History, Gazetteer, and Directory of Norfolk* (second ed., Sheffield: William White, 1845, p. 687), was eliminated by parliamentary inclosure in 1840. The brick pits at Freethorpe are mentioned in Horace Bolingbroke Woodward, *The Geology Of The Country Around Norwich (Memoirs of the Geological Society of Great Britain)* (London: Her Majesty's Stationery Office, 1881), pp. 102, 119. A brickyard is known to have existed at Freethorpe as early as 1711, from an advertisement for malt-kiln tiles placed in the *Norwich Gazette* for Saturday, 8 September 1711.
- 7 Parish of East Dereham, Tithe apportionment, 1840 [map, 1838-9], field N<sup>o</sup>. 498 (NRO, Norwich diocesan papers, DN/TA 267).
- 8 Map of the parish of East Tuddenham drawn up in connection with the Inclosure Award, 1804, 90 inches by 60 inches (NRO, Norfolk County Council deposit, C/Ca 1/65).



- 9 Clay had applications in agriculture and building. In agriculture its use was, where the clay was chalky, as a manure, otherwise as a stiffener of light soils. In building clay was used for walling, either in itself or as a daub on to studwork, as well as for making floors, especially those of threshing barns. The use of clay for the making of bricks and other fired wares was, by volume comparison, a minor use. Hugh Counsell Prince, 'The origins of pits and depressions in Norfolk', *Geography*, vol. 49, 1964 (January, pp. 15-32, pl. I-VI).
- 10 A Draught of the Estate of Brampton Gurdon Dillingham, Esquire, lying in Letton and towns adjacent in the County of Norfolk, made by Isaac Lenny of Beccles in 1783 (Suffolk Record Office, Ipswich, Gurdon papers, HA 54:970/1312).
- 11 Joseph Hill, 'Survey of the Houghton Hall estate, 1800', ed. David Yaxley, *Norfolk Record Society*, vol. 50, 1984, pp. 49-51.
- 12 Map of the estate of Sir John Lombe in the parish of Hoe, early 19th century, 42 inches by 30 inches, field N<sup>o</sup>. 30 (NRO, NRS 4109 [228], Cabinet I).
- 13 Parish of North Elmham, Churchwardens' accounts, 1539-77 (NRO, PD 209/153).
- 14 Parish of Banningham, Tithe apportionment, 1839 (NRO, Norwich diocesan archives, DN/TA 640).
- 15 Parish of Brisley, Tithe apportionment, 1841 [map, 1838] (NRO, Norwich diocesan archives, DN/TA 409).
- 16 Parish of Edingthorpe, Tithe apportionment, 1840 (NRO, Norwich diocesan archives, DN/TA 304).
- 17 Parish of Swardeston, Tithe apportionment, 1847 (NRO, Norwich diocesan archives, DN/TA 962).
- 18 Parish of North Walsham, Tithe apportionment, 1843 (NRO, Norwich diocesan archives, DN/TA 663).
- 19 Parish of Welborne, Tithe apportionment, 1839 (NRO, Norwich diocesan archives, DN/TA 186).
- 20 John Steane, 'Nettlebed brick kiln' [Oxfordshire], *Council for British Archaeology Group 9 Newsletter*, vol. 9, 1979 (pp. 93-4). F. G. Aldsworth, 'An eighteenth-century brick kiln on Ebernoe Common, Kirdford', *Sussex Archaeological Collections*, vol. 121, 1983 (pp. 219-24). Martin D. P. Hammond, 'Powerstock Common brick kiln, Dorset', *British Brick Society Information*, N<sup>o</sup>. 48, July 1989 (pp. 6-10). Terence Paul Smith, 'Kiln painting' [Brill Common, Buckinghamshire], *British Brick Society Information*, 50, October 1990 (p. 2). The kilns mentioned all date from the late 18th or 19th centuries but the supposition, which may not be warranted in all cases, is that they were erected within areas previously exploited for brickmaking.
- 21 Francis James Bennett, *The Geology Of The Country Around Attleborough, Watton, And Wymondham* (London: Her Majesty's Stationery Office, 1884), p. 6.
- 22 Horace Bolingbroke Woodward, *The Geology Of The Country Around Fakenham, Wells, And Holt* (London: Her Majesty's Stationery Office, 1884), p. 31.
- 23 H. B. Woodward (1884), p. 32.
- 24 *The Victoria History of the counties of England: Lancashire*, vol. 2, ed. William Farrer (London: Archibald Constable and Company, 1908), p. 403.
- 25 Giles Jacob, *The compleat court-keeper: or, the land-steward's assistant* (third ed., London: E. & R. Nutt and R. Gosling, 1724), pp. 23-4. John Scriven, *A treatise on copyholds* (second ed., 2 vols., London: Henry Butterworth, 1823), vol. 1, p. 480.
- 26 Francis Blomefield and Charles Parkin, *An Essay Towards a Topographical History of the County of Norfolk* (11 vols., London: William Miller, 1805-10), vol. 5, p. 26.
- 27 G. Jacob (1724), pp. 23-4. Oliver Rackham, *Ancient Woodland: Its History, Vegetation And Uses In England* (London: Edward Arnold, 1980) p. 174.
- 28 William George Clarke, 'The commons of Norfolk', *Transactions of the Norfolk and Norwich Naturalists' Society*, vol. 9, 1909-14 (pp. 52-70). Oliver Rackham, *History of the Countryside* (London and Melbourne: J. M. Dent and Sons Limited, 1986), p. 295.
- 29 Pehr Kalm, *Kalm's account of his visit to England on his way to America in 1748* (London and New York: Macmillan and Company, 1892), pp. 198-9, 207-08, 249, 256-7, 260.
- 30 Gilbert White, *Journals*, ed. Walter Johnson (London: G. Routledge and Sons, 1931), p. 417.
- 31 Lease from Sir Arthur Capell to Edmund Hamond and William Ditcher of lands in South Wootton, dated 8 March 1625 [old style] (NRO, Westacre estate papers, BIR 67/2, 397 X 2).
- 32 Item from Durrant collection (NRO, NRS 17434, Sco. 29/25/1, 115 X 5).
- 33 Item from Folkes collection (NRO, NRS 1223, 10 B 4 Folkes and 10 A 4 Folkes).

- 34 Manor of Thompson, late of the College, Extracts from the court book, 1764-79 (NRO, Merton estate papers, WLS XXII/16, 414 X 2).
- 35 Corporation of Norwich versus Samuel Browne, Book of documents compiled by Sharpe Parkers Pritchard & Sharpe, London, for H. B. Miller, Town Clerk, Norwich, 1881, [containing] Extracts from Norwich cathedral audit book (Norwich Central Library, Department of Local Studies, Colman 46A).
- 36 William Chase, *The Norwich directory; or, gentlemen and tradesmens assistant* (Norwich: W. Chase and Company, 1783), p. 9. Thomas Peck, *The Norwich directory* (Norwich: J. Payne, 1802), p. 5. C. Berry, *A Concise History and Directory of the City of Norwich* (Norwich: C. Berry, 1810), p. 78.
- 37 Corporation of Norwich versus Samuel Browne, 1881, Liber A (Norwich Central Library, Department of Local Studies, Colman 46A).
- 38 Corporation of Norwich versus Samuel Browne, 1881, Liber B, p. 26 (Norwich Central Library, Department of Local Studies, Colman 46A).
- 39 Parish of Pentney, Verdict of the court leet, dated 4 October 1680 (NRO, Westacre estate papers, BIR 31/38, 396 X 7).
- 40 Parish of Swaffham, A Verdict Made by the Jury at a Court Leet Holden on the Thirtyeth day of Sep<sup>r</sup> 1736 (NRO, PD 52/404).
- 41 M<sup>r</sup>. John ffox's Acknowledgment and Promise relating to his Turves & the Soil on Horsford co<sup>m</sup>on. Dat<sup>d</sup>. 9<sup>th</sup> May 1757 (NRO, Aylsham collection, AYL 447).
- 42 Manor of Thompson, late of the College, Extracts from the court book, 1764-79 (NRO, Merton estate papers, WLS XXII/16, 414 X 2).
- 43 Maurice Willmore Barley, *The English Farmhouse and Cottage* (London: Routledge and Kegan Paul Limited, 1961), p. 205.
- 44 David Whitehead, 'Brick and tile making in the woodlands of the west Midlands in the 16th and 17th centuries', *Vernacular Architecture*, vol. 12, 1981 (pp. 42-7), p. 45.
- 45 Molly Beswick, *Brickmaking in Sussex: a History and Gazetteer* (Midhurst: Middleton Press for the Sussex Industrial Archaeology Society, 1993), pp. 25-8, 32, 34, 42. Mrs Beswick's earlier and more confined study of brickmaking on the Dicker Common in East Sussex suggests that by the 18th century manorial presentments in that region were often followed by a lease or grant of the land appropriated. Molly Beswick, 'Brick and tilemaking on the Dicker in East Sussex', *Sussex Industrial History*, vol. 13, 1983 (pp. 2-10).
- 46 Mark Knights, *Mousehold Heath and the Manor of Pockthorpe* (Norwich: circa 1881), p. 21. The measurement is derived from an annotation to a map of Mousehold Heath, circa 1586, held in the Public Record Office, London, part of which (without the annotation) is reproduced in John Kirkpatrick, *The Streets and Lanes of the City of Norwich*, ed. W. Hudson and W.T. Bensly (Norwich: Agas H. Goose for the Norfolk and Norwich Archaeological Society, 1889), facing p. 119.
- 47 William J. Blake, 'Parson Russell's reply to Blomefield's queries', *Norfolk Archaeology*, vol. 29, 1946 (pp. 164-80, pl. I-II), p. 170.
- 48 John Botyvaunt versus Edward Paston and Miles Corbett in the Court of Exchequer, 28.9. Eliz. N<sup>o</sup>. 31 (NRO, Norwich city records, N/TC 50/6, bundle C). The map mentioned in note 46 was drawn up in connection with this action.
- 49 Notice in the *Norwich Gazette*, Saturday, 5 February 1709.
- 50 Map of Mousehold Heath, circa 1586, as cited in notes 46 and 48.
- 51 Notices in the *Norwich Mercury*, Saturdays, 15 November 1766 and 24 March 1787.
- 52 Manor of Pockthorpe, Court rolls, 1837-1950 (NRO, Church Commissioners, Chapter estates, 135524-5).
- 53 M. Knights (circa 1881), p. 33.
- 54 The Corporation of Norwich versus Samuel Browne and others, 1881-3, Memorial laid before the High Court of Justice (NRO, Norwich city records, N/TC 50/8, bundle B).
- 55 As soon as the Corporation of Norwich obtained possession of the site from the brickmakers it pursued works that were to obliterate the more obvious signs of brickmaking activity. Kilns were broken up or buried. A number of kilns are thought to lie underneath the Fountain sports ground on the south side of the present Gurney Road. More kilns almost certainly lie beneath the Gilman Road sports ground to the east of the Lazar House. It must have been near this second spot that, either before or very shortly after the curtailment of brickmaking activity,

- that the artist Obadiah Short (1803-86) made his watercolour sketch of an abandoned brick-kiln and the two windmills which stood on that part of Mousehold Heath. The drawing, measuring 9? inches by  $5\frac{3}{16}$  inches and preserved in the Castle Museum, Norwich (accession No. 3.59.932), served as a study for a work in oils by the same artist.
- 56 Claim of the inhabitants of Pockthorpe dated 12 September 1859, Affidavit No. 6. Letter from the Chairman of the Pockthorpe Committee to the Lords Commissioners of Her Majesty's Treasury, October 1867, Affidavit No. 9 (NRO, Norwich city records, N/TC 50/9, bundle A).
- 57 Neil MacMaster, 'The battle for Mousehold Heath 1857-1884: "popular politics" and the Victorian public park', *Past and Present*, 1990 (126, February, pp. 117-54). I am indebted to Dr MacMaster for drawing the subject of brickmaking on Mousehold Heath to my attention.
- 58 [Thompson Inclosure, 1815]. *State of Colonel Wm. T. Harwood's amended claim, No. 1* (NRO, Merton estate papers, WLS XXII/16, 414 X 2).
- 59 Proofs regarding the claims of Colonel Harwood offered to the Parliamentary commissioners of inclosure meeting in Watton, 10-11 June 1816 (NRO, Merton estate papers, WLS XXII/16, 414 X 2).
- 60 *A true plott or description of part of Mushould which lyeth in Thorpe next Pockthorpe*, map measuring 24 inches by 24 inches, Thomas Waterman, surveyor, July 1624 (Norwich Castle Museum, with photostat copy at NRO, MS 4457/1, Cabinet II).
- 61 City of Norwich, Mayor's Court proceedings, 1624-34, folia 81, 91 verso, 93, 156 verso (NRO, Norwich city records, case 16, shelf a (16)).
- 62 Presbyterian Church, Norwich, Minutes of the building committee for the Octagon Chapel, 30 November 1753 (NRO, FC 13/1).
- 63 As note 4.
- 64 Felbrigg estate disbursements, compiled by Smith, Joseph Eldon and Edward Fairchilde, 1681-7 (NRO, Felbrigg estate papers, WKC 5/155, 400 X 6). Felbrigg bailiff's accounts, compiled by Stephen Legge, 1688-1717 (WKC 5/162-210, 400 X 6).
- 65 Holkham country accounts, 1722-65 (Holkham Hall archives, bay A, shelf 5, Nos 1-8, and shelf 4, Nos 26 & 27). For fuller figures on production at the Holkham estate brickyard see: R. Lucas (PhD thesis, 1993), vol. 1, pp. 273-4, 285-6 (notes 15-21).
- 66 William Faden, *A topographical map of the county of Norfolk*, one inch to the mile, 66? inches by 48 inches (London: W. Faden, 1797).
- 67 Nathaniel Kent, *General View of the Agriculture of the County of Norfolk* (Norwich: Crouse, Stevenson and Matchett, London: George Nicol, 1796), p. 7.
- 68 *Return of owners of land (England and Wales), 1873 (c. 1097)* (2 vols., London: Eyre and Spottiswoode for Her Majesty's Stationery Office, 1875), vol. 1, pp. (15), 'Norfolk', 1.
- 69 'A Piece of ten Spades, which is about thirty three Foot Square, will make an hundred thousand of Bricks'. Information received by John Houghton in 1693 and published in *A collection for improvement of husbandry and trade* (London, 1692-1703), No. 69, Friday, 24 November 1693. 'A yard Square of Clay will make seven or eight hundred of Bricks'. John Mortimer, *The whole art of husbandry* (2 parts, London, 1707), the relevant section of which is reprinted in James Edwin Thorold Rogers, *A History of Agriculture and Prices in England* (7 vols., Oxford: Clarendon Press, 1866-1902), vol. 7, part 2, p. 616. 'A yard square of solid clay will make about six hundred of Bricks'. John Mordant, *The complete steward; or, the duty of a steward to his lord* (2 vols., London: W. Sandby, 1761), vol. 1, p. 23. The quantity of clay necessary to make 1000 bricks will be somewhere about 54 cube feet, which allows about 5 feet for shrinkage in drying and burning'. Joseph Gwilt, *An Encyclopaedia of Architecture, Historical, Theoretical, & Practical*, ed. Wyatt Papworth (London: Longmans, Green and Company, 1867), p. 525. Further statements on the amount of ground required to produce a given quantity of bricks may be found in Edward Dobson, *A Rudimentary Treatise On The Manufacture Of Bricks And Tiles* (2 parts, London: John Weale, 1850), part 2, p. 21; Hugh Raynbird, *A Cyclopaedia Of Agriculture, Practical And Scientific*, ed. John Chalmers Morton (2 vols., Glasgow, Edinburgh and London: Blackie and Son, 1855), vol. 1, p. 350; *Notes on Building Construction. Part III: Materials* (London, Oxford and Cambridge: Rivingtons, 1879), p. 91.
- 70 The increased demand for brick in the mid 18th century is discussed in R. Lucas (PhD thesis, 1993), chapter 9 (pp. 242-69).

- 71 The greater use of roof-tiles in the 18th century is discussed in R. Lucas (PhD thesis, 1993), vol. 1, chapter 12 (pp. 325-55).
- 72 For information and sources on the consumption of firing fuels by brick-clamps and kilns see: R. Lucas (PhD thesis, 1993), vol. 1, pp. 168-71, 214-15.
- 73 John Wiggins, 'On the mode of making and using tiles for under-draining, practised on the Stow Hall estate in Norfolk, &c.', *Journal of the Royal Agricultural Society*, vol. 1, 1840 (pp. 350-56, pl. I-IV), pp. 353, 354.
- 74 It is recorded that in 1755 the Holkham farm supplied 160 cart-loads of whins to the brick-kiln. Most of the fuel, however, was cut and bound by men who worked in the brickyard or as labourers on the estate. Holkham country accounts, 1730-62 (Holkham Hall archives).
- 75 Notebook of Sir Hamon and Sir Nicholas L'Estrange, 1613-1721, p. 77 (NRO, Hunstanton estate papers, Q 38).
- 76 Houghton general estate accounts, including corn threshed, cartage of timber, bricke, water & marl (3 vols.), 1718-45 (Cambridge University Library, Department of Manuscripts, Cholmondeley Mss., C(H) 23/1-3). The accounts do show that whins and flags were gathered and taken to the brick-kiln, indicating that part of the burn was fuelled with material other than coal.
- 77 Notice in the *Norwich Mercury*, Saturday, 28 April 1743.
- 78 Holkham country accounts, 1722-65 (Holkham Hall archives).
- 79 Notices in the *Norwich Mercury*, Saturdays, 6 December and 13 December 1766.
- 80 [Heacham] Brick Acct., 1774-7 (NRO, Heacham estate papers, HEA 489, 256 X 4).
- 81 Notices in the *Norwich Mercury*, Saturday, 3 January 1778; and the *Norfolk Chronicle*, Saturday, 14 February 1778.
- 82 Langley estate disbursements, 1766-88, pp. 6 (1772) and 142 (1780) (NRO, Langley estate papers, BEA 336, 438 X).
- 83 Arthur Young, *General View of the Agriculture of the County of Norfolk* (London: Richard Phillips, 1804), pp. 21-2.
- 84 Islington estate disbursements, 1801-54 (NRO, Bradfer-Lawrence papers, B-L XIIg).
- 85 Rates of Carriage Work as agreed to be allowed to William Rands from 11 October 1815 to 11 October 1816 (NRO, Stow Bardolph estate papers, Hare 5337, 220 X 6).
- 86 Charles Edward Curtis, *Estate Management: A Practical Handbook for Landlords, Stewards, and Pupils* (London: The Field Office, 1879), p. 222.
- 87 J. Wiggins (1840), pp. 354-5.
- 88 Flegg Poor Law Union, Minute-books of Guardians, vol. 1, May 1775 - July 1777, entry for 21 November 1775 (NRO, C/GP 7/1).
- 89 Letter from James Bellamy, land-agent, addressed to Richard Howard, dated 26 October 1809 (NRO, Castle Rising estate papers, HOW 750/35).
- 90 31 Eliz. I c. 7, section 4.
- 91 3 & 4 Edw. VI c. 3, sections 5 and 6.
- 92 See R. Lucas (PhD thesis, 1993), vol. 1, pp. 83-4.