

1/6
REPORT AND COMMUNICATIONS.

REPORT

PRESENTED TO THE

Cambridge Antiquarian Society,

AT ITS FORTY-SECOND ANNUAL GENERAL MEETING,

MAY 22, 1882,

WITH AN ABSTRACT OF THE PROCEEDINGS OF THE SOCIETY,
1881—1882.

ALSO

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No. XXIV.

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WITH APPENDIX.



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IX. ON THE MEASUREMENTS AND VALUATIONS OF THE
DOMESDAY OF CAMBRIDGESHIRE. Communicated
by the Rev. BRYAN WALKER, LL.D., Corpus
Christi College.

[November 28, 1881.]

IN the winter session at the end of A.D. 1083 King William laid a tax of 72 pence on every hide of land in the kingdom, in order to raise forces to oppose the threatened invasion of Canute of Denmark. This tax was collected in A.D. 1084, and was levied, without doubt, according to the assessment for a Danegeld made in A.D. 1013. But the changes due to mere operation of time, aggravated by the devastation of the Danish wars and the mischief caused by the numerous revolts against the Conqueror's rule, had deranged the accuracy of the rating; and the levying of the Danegeld in A.D. 1084 caused deep and well-founded discontent. To ascertain the actual resources of the realm, with a view, most probably, to readjustment of taxation, the famous Commissioners were sent into the country, which seems to have been divided amongst them into nine circuits. According to Eyton, whose opinion is supported by other authorities, the circuits were as follows:

- Circuit I. Kent, Sussex, Surrey, Hampshire, the Isle of Wight, Berkshire:
- „ II. Wilts, Dorset, Somerset, Devonshire, Cornwall:
- „ III. Middlesex, Herts, Bucks:

- Circuit IV. Gloucestershire with part of Monmouth, Worcestershire, Herefordshire, and part of Wales :
- „ V. Cambridgeshire and Bedfordshire :
- „ VI. Northamptonshire with one-third of Rutland, Leicestershire, Warwickshire, Oxfordshire :
- „ VII. Staffordshire, Shropshire with part of Wales, Cheshire with part of Wales, South Lancashire :
- „ VIII. Derbyshire, Nottinghamshire with two-thirds of Rutlandshire, Yorkshire with Amurderness or Mid-Lancashire, North Lancashire (i.e. Furness with part of Westmoreland), Lincolnshire, Huntingdonshire :
- „ IX. Essex, Norfolk, Suffolk.

Cambridgeshire and Bedfordshire therefore constituted the smallest circuit, and it may be because the Commissioners in this narrow district had an abundance of time for their task, that these two counties are surveyed with an amount of detail only exceeded in the returns for Essex, Norfolk and Suffolk. In the three counties last named the Clerks of the Exchequer appear not to have condensed the original reports, as they did generally ; whilst in Cambridgeshire and Bedfordshire they seem to have abridged the returns of the travelling Commissioners, but to have had before them returns of unusual completeness. That in all parts of England the primary survey contained a much greater amount of detail than we now find in the Book of Winton¹, is proved by the existence of the *Inquisitio Eliensis*²,

¹ *Liber de Wintonia* seems to have been the technical title in early times of the book now known as Domesday : and the last-mentioned name comes into use in the twelfth century. The *Dialogus de Scaccario* speaks of it as *Liber Judicarius*. But as to this see Freeman's *Norm. Conq.* Vol. 5, App. A.

² Only two copies of the *Inquisitio Eliensis* are known to exist. The one in the British Museum was given to Sir Robert Cotton by Arthur Agard, whose well-known paper "On the Dimensions of Lands in England" —(to which I shall make frequent reference,)—bears date Nov. 24, 1599.

the Exon Domesday and the Boldon Book, all transcripts of the original papers, made *verbatim* by those interested in the tenure of particular districts or holdings. The *Inquisitio Eliensis* is useful in testing, and sometimes in completing, certain entries contained in our Cambridgeshire Record, those, namely, of the possessions of the Abbey of Ely, in behalf whereof this copy seems to have been taken about the time of Henry II. The *Inquisitio*, like the Exon Domesday and the Record of the three East Anglian Counties, gives particulars as to the store-cattle, sheep, pigs and horses in each manor or holding, in addition to those statistics as to hidage, carucage, cultivators and profitable incidents set down in the Great Exchequer Book.

Bearing in mind the occasion of the Survey, we are prepared to find a Statement of the Hidage on which the tax of A.D. 1084 was levied, and an estimate of the actual value of every holding; but, besides, we find many other important and interesting particulars, as the hidage in demesne, when there was any, the quantity of land under the plough, the number of teams, and (in the original notes of the Commissioners,) the number too of the animals not used for draught; also the number of cultivating tenants, slave, serf or free¹. Each entry concludes with the *valet*, or estimate of income; and in addition we usually find two other valuations set down, viz. the worth of the land when the then tenant entered on it (*Quando recepit*, Q. R.), and the worth in the time of the Confessor (*Tempore Regis Edwardi*, T. R. E.). All these valuations are far from being proportionate to the Hidage; and this I think we should expect, first, because of the prevalence of exemption or favourable hidation (a point to which I shall recur), secondly, because

¹ I must dissent from the opinion of Archdeacon Hale, that tenants are not enumerated in these lists when they paid money rents only, and rendered no agricultural services; as I also cannot agree with his notion that the *valet* comprises *only* the pecuniary renders of these non-working tenants. I shall discuss these points later on.

of the depressed condition of England when Ethelred first levied the Danegeld of A.D. 1013.

The following table shows the state of the case as regards Cambridgeshire. Against each Hundred I have placed the number of Hides, the Domesday value, and the value T. R. E., omitting only the valuation Q. R. :

Hundred.	Number of Hides.	Domesday Value.			Value T.R.E.		
		£	s.	d.	£	s.	d.
Chesterton	117½	76	9	4	90	0	0
Cheveley	29	94	8	4	86	0	0
Chilford	54½	124	13	3	113	8	11
Ely	80½	173	7	0	197	3	0
Erningford	100	203	8	4	235	0	4
Flendish	46	79	12	8	69	2	8
North Stow	108	87	1	0	135	18	0
Papworth	95¼	85	12	4	110	18	8
Radfield	69½	105	17	8	101	7	8
Staine ¹	54	112	13	4	88	0	0
Staplehow	87½	240	9	0	204	13	4
Stow	96	129	10	6	173	12	6
Triplow ²	87	119	10	0	130	15	0
Wetherley	77½	149	13	0	160	5	4
Whittlesford	80½	88	12	4	106	5	8

I will now proceed to make some observations upon various points which an examination of the Domesday survey has suggested to me; and these I propose to arrange under the following eight heads³:

¹ In the number of hides I have allowed 8 for Great Wilbraham, where the number is omitted.

² Here, in giving 87 hides, allowance is made for 2½ hides + 9 ac. set down *twice*, and 1½ hides + 6 ac. set down *three* times in Shelford.

³ It has been found impossible to print intelligibly on ordinary pages the tables which contain my exact analysis of the whole contents of the survey, so far as Cambridgeshire is concerned. They have therefore been printed in a separate fasciculus.

- I. On Hides and their Size.
- II. On Caruca and Terra ad Carucam.
- III. On Domesday Acres.
- IV. On Bovates.
- V. On Hidation.
- VI. On the Domesday Valuation (*valet*) of Manors and Holdings.
- VII. On the Population of the County.
- VIII. On the Minor Incidents of Value.

I. *On Hides and their Size.*

On few points has greater difference of opinion prevailed than on the number of acres intended by a *Hide* in the Domesday Book, and on the relation of the *Carucate*, *Virgate* and *Bovate* to the Hide. Ellis in his "Introduction to Domesday" quotes the most contradictory statements on these topics, and himself arrives at no definite conclusion, except that a *Virgate*, or Yardland, was the fourth part of a Hide; and that in many parts of England *Carucata* was a synonym of Hide, both being something distinct from Ploughland, or *Terra ad unam carucam*. With the first conclusion of Ellis, I think, the Cambridge Domesday is entirely in accord. As to the second, *Carucata* is a local designation of the Hide, in Lincolnshire preeminently, also in Derbyshire, Yorkshire, Nottingham and Rutland. Leicestershire might be added, as the *Hide*, in the few places where it is mentioned in the Domesday of the County, has reference to Saxon measurement, and the Norman estimate is in *Carucates*¹.

¹ See the Tables at the commencement of Nichols's *History of Leicestershire*.

Walter Whittlesey, quoted by Kennet, says, "in provincia Lincolnæ non sunt hidæ, sicut in aliis provinciis, sed pro hidis sunt carucatæ terrarum, et non minus valent quam hidæ." And Knighton also says: "de qualibet hida, id est carucata terræ."

Taking then these two points for granted, we find the authorities quoted by Ellis upholding one or another of three views:

- (1) that the Hide was about 240 modern acres,
- (2) that the Hide was 100 or 120 acres (*centum*),
- (3) that the Hide was a variable quantity, a mere measure of assessment, viz. that amount of soil which, according to its fertility, the proportion of its land under plough or in enclosures to its pasture, woodland and waste, and its supply of working cattle and cultivating serfs, was considered proper to be rated for six shillings Norman¹ in the report of Domesday, "about this land, how it was set," made in A.D. 1086.

Kemble's view is altogether different. He says that the Hide of Domesday was 40 Norman acres, or $33\frac{1}{3}$ Saxon (one or other of these acres being our modern acre), and that the Hide was arable land only: the latter being, according to almost all other writers, an erroneous assumption, at any rate in reference to the Norman Survey. He supports his numerical estimate mainly by reference to the Hidage of various parts of England,

¹ Nichols in his *History of Leicestershire* (copying Hutchins on Dorsetshire, and both of them following Webb, *On Danegeld*), says that *Libra* in Domesday = 12 oz. = 72 *solidi*, = £3. 12. 0 of modern money *in weight*. Kelham says *Libra* = £3. 2. 0, possibly a misprint for £3. 12. 0. *Solidus*, according to all of them, = 12 pence, or *in weight*, 3 modern shillings. Hume, *Hist.* i. 103, says the Saxon silver penny was three times as heavy as it is now, that 5 pence made a Saxon shilling, and 48 shillings a pound, which therefore was equivalent to 60 shillings of modern money.

given by Beda¹, and by quotation of two lists of the Hides in certain counties, found in the Cotton MSS. These lists relate to a much earlier period than the Conquest, are to a great extent contradictory, and, as far as I have had opportunity of testing them, the Hidage of each and all is inconsistent with the Domesday Hidage; showing that a Hide, as Beda and his contemporaries understood it, had nothing but its name in common with the Hide of Ethelred or the Conqueror. Kemble seems to have scarcely inspected the Great Domesday (*Liber de Wintonia*), but he makes an isolated quotation from the Exon Domesday, in support of his contention that a Hide is 40 acres. Eyton, however, taking a different reading of the figures in this entry, deduces that a Hide is 48 acres: and this he says is correct, because the Inquisitors of Dorset calculated in *Gheld Acres* (of which more hereafter), each containing 5 statute

¹ See Kemble's *Saxons in England*, pp. 101—110 and App. B.

Beda says

The Isle of Wight contained	1200	hides, and its acreage is	86,810.
Thanet	600	„ „ „	26,500.
Kent	15,000	„ „ „	972,240.
Sussex	7000	„ „ „	907,920.
East Anglia	300,000	and Norfolk and Suffolk contain	2,241,060 acres.
Essex	7000	„ and its acreage is	979,000.

These are Kemble's figures; and the other documents which he quotes are:

I. Cotton MS. Claud. B. vii (fol. 204, b.), which appears to have been written in the time of Henry III.,

Wiltescyre	4800	hydæ.	Herefordscyre ...	1500	hydæ.
Bedefordscyre.....	1200	„	Warewycscyre ...	1200	„
Cantebrigescyre ...	2500	„	Oxenefordscyre ...	2400	„
Huntedunescyre ...	850	„	Salopescyre	2300	„
Northamptescyre..	3200	„	Cesterscyre	1300	„
Gloucesterscyre ...	2400	„	Staffordescyre.....	500	„
Wirecesterscyre ...	1200	„			

II. Cotton MS. Vesp. A (fol. 112, b.), written in the reign of Edward I.

Bedfordshire	1000	hydæ.	Worcestershire ...	1500	hydæ.
Northamptonshire	4200	„	Shropshire	2400	„
Gloucestershire ...	2000	„	Cheshire	1200	„

acres¹. Whether 40 or 48 be correct, we must, at any rate, agree with Eyton that the acres are of Gheld measurement.

Hence, this proof of Kemble's fails, and his lengthy tabulation of acreages on p. 106 of his *Saxons in England* is of little value, first, because he assumes that he may take the modern acreage of a manor as identical with its acreage in Saxon times, and secondly, because the extracts from the *Codex Diplomaticus*, on which his table is based, refer to a period anterior to the imposition of Danegeld, ("antequam Anglia hidata fuit" in Agard's words), when "hide" may have meant, as Kemble says it did, the allotment competent to maintain a household, but certainly did not mean what it denoted in Ethelred's assessment. These ancient hides were very likely identical with the *mansæ* of the towns mentioned in Domesday. (See Stubbs' *Constit. Hist.* vol. I. p. 74, note. Robertson's *Historical Essays*, pp. 88—102.)

To return, then, to the other three views. In support of the first, that the Hide was 240 acres, we have mention in a Register Book of Ely, quoted first by Agard, and afterwards by Ellis, that at Leverington the Yardland, or quarter-hide (for such hereafter it will be proved the Virgate was), contained 60 acres. We have also the facts that in Dorsetshire, Somersetshire, Shropshire, and Lincolnshire, the number of Hides, as tabulated by Eyton and others whom he quotes, gives (when divided into the known acreage of the counties,) the result of an average

¹ Kemble says (App. B. p. 490): "in the Exeter Domesday fol. 48 we find 10 hides of land to be made up of the following parcels, 4 hides + 1 virgate + 6 agri + 5½ hides + 4 agri," and adds that therefore $10h = 9\frac{1}{2}h + v + 10a$: whence he deduces, as $h = 4v$, $v = 10a$, and $h = 40a$.

Eyton reads 8 *agri*, where Kemble reads 6 *agri*; although it must be confessed that the MS. seems in favour of Kemble. But the entries in the Exon Domesday are not very accurate generally; and particularly inaccurate in the page from which the quotation is taken. In the very next entry, for instance, we have mention of a Manor of 5 hides, but made up of 3 hides + 8 acres in demesne and 2 hides - 12 acres held by villains, a manifest error of 4 Gheld acres = 20 statute acres, on one side or other of the equation.

of 240 $\frac{3}{4}$ acres for a hide in Dorset, 250 in Somerset, 244 in Kent-
 steven, the only portion of Lincolnshire where the condition of
 the county in Norman times was comparable with the modern
 state of things, and a little over 240 acres in Shropshire.

In Sussex, again, Horsefield says, there were 3480 hides
 according to Domesday; and the County now contains 934,006
 acres, giving 268 acres to the Hide; but allowing for marsh and
 waste ground, 240 here also is a fair approximation. In Leices-
 tershire the Hides, by Nichols's calculation, are 2105, and the
 acreage 514,164, making the Hide about 245. But we must
 admit that in Wiltshire, the Hides, calculated as Eyton calcu-
 lates them for Dorset and Somerset, are 4632 (see Wyndham's
Domesday of Wilts), and the acreage is 867,792, making the
 hide 187 acres.

In support of the second view, we have a statement in the
Dialogus de Scaccario, probably taken from the *Liber Niger* of
 Henry II, that a Hide is equivalent to a hundred acres, or to
 120 (for *centum* in ancient documents frequently means *six*
*score*¹), also an assertion in a Malmesbury MS., referred to by
 Agard, Spelman and Ellis, that a virgate = 24 acres, and that a
 Hide = 4 virgates, making the Hide 96 acres. We have further
 in the same Register Book of Ely, which puts the Yardland,
 or quarter Hide, in Leverington at 60 acres, a statement that it
 measured 30 acres at Fenton, and 32 acres at Tyd St Giles, the
 Hide therefore being 120 or 128 acres in those localities. Kennet
 in his *Glossary*, quoting from Agard, speaks of Hides, or Caru-
 cates, of 112 acres and 150 acres (*temp. Ed. III.*) at Burcester
 and Middleton in Oxfordshire. He also mentions a charter of

¹ Agard quotes a curious note: "entred in an ancient Record in the
 Treasury, before a Declaration made of Knights' Fees belonging to the
 Bishop of Lincoln: nota, quod carucata terræ continet in se C acras: et
 VIII bovatae faciunt carucatum; et quælibet bovata continet xv acras."
 Also "from the Black Book, in cap. penultimo lib. I, hida a primitiva
 institutione ex centum agris consistit, which in mine opinion is six score
 acres." See also Elton, *On the Tenures of Kent*, p. 126.

9 Richard I where one hundred (120) acres are assigned to the Carucate ; but against this must be set his mention of a Carucate of 60 acres in another record of the same reign. The explanation probably is that in the last instance he is quoting an account of the *carucata operabilis*, or portion of land actually taken out of fallow in any year, in a three-shift manor, where 60 acres were reploughed and 60 freshly broken up each year.

C. G. Smith in his *Domesday of Lincolnshire* says: "the hide of land and the carucate of land are estimated to contain 120 acres each." Marsh very strenuously maintains that a Hide was 120 acres, in the Glossary prefixed to his "*Domesday of Essex*," and quotes some very convincing passages. In Bishop Hatfield's Survey, *circa* A.D. 1360, we have carucates of 120 acres at Halghton, and carucates of 8 bovates (each bovate = 20 ac.) at Rykenhall : but in the 14th century the "carucate" was fast losing its original signification, and assuming a new meaning, to which I shall presently refer.

Selden hovers between the two views already exemplified, holding that "the hide was 240 acres till the reign of Richard I, and then was reduced to 100"; but, as will be shown immediately, he does not adhere to this opinion, or to either of these opinions, consistently. We have, perhaps, the most cogent proof of all, a matter of record, in the *Placita apud Cantabrigiam*, 18 *Ed. I.* (which is quoted by Agard and Ellis): "dicunt quod sunt in Hokington (a village in Cambridgeshire, now called by the vulgar Oakington) XII hidae terrae, quarum quaelibet hida continet in se sexies viginti acras terrae." But observe that "continet" may imply that the 120 acres of arable were *part* of it, and not the whole.

It is also worth noticing that in the *Inquisitio Eliensis*, where a Hide is generally denoted by the abbreviation *h*, and rarely by *hid.*, there are two entries where instead of *h*, we find written *hund.*, viz. in the accounts of the Abbot of Ely's holdings in Wratting, "III hund.," and Melbourne, "de his VIII hund."

These may, of course, be mere blunders of the scribe, but it seems more probable that he considered the Hide to contain a hundred, i.e. sixscore, acres of arable land.

For the third view, that a Hide is not a matter of acreage at all, we have Selden's maturer opinion, that "the Hide was ever of an uncertain value," and we have besides the fact established by Eyton's careful examination of Dorset areas, that in various manors of that county the Hide ranged from 4,000 to 84 acres, the average, however, being, as already said, about 240. Wyndham, in his *Wiltshire Domesday*, makes "no scruple to define Hida as an uncertain portion of land, that might annually be worth twenty Norman shillings."

Amid these conflicting views can nothing definite be established?

Keeping all three in view, I have carefully analysed the Domesday of Cambridgeshire: and the conclusion to which I am led is that they *can* be harmonized, for that each is, in its own sense, correct. The Domesday Hide varied, I believe, enormously in extent; but still, in districts cultivated according to the ordinary fashion of the time, contained on a rough average 240 acres; about 120 of them, or in some manors 80¹,

¹ In the Hundred Rolls we have mention of Hides or Carucatæ of 120 acres, or virgates of 30 acres, in Cottenham, Westwick, Hokington, Girton, Elsworth, Papworth Agnes, Bourne, Harston, Triplow, Foulmire, Barton, Barrington, Grantchester, Haslingfield, Harlton, Orwell, Shepreth, Hinxton, Sawston, Whittlesford, &c.: and of Hides of 80 acres in Cottenham, Teversham, Fulbourne, Conington, Swavesey, Balsham, Swaffham, Isleham, Hardwick, Bourne, possibly Gamlingay, and Barrington. Larger hides or carucates of 160 acres are found in Barrington, Orwell, Wimpole. It will be noted that in some vills there are hides of different sizes: this is explained by such vills containing two or more manors, cultivated on different systems, two-field or three-field, as shown hereafter.

The proof that a virgate was one quarter of a Hide, depending on the connection of the number of acres in each of them, is purposely postponed till the subject of "Norman acres" is discussed, to avoid an inconvenient digression.

being under the plough each year, 60 or 80 more, according to the system of the cultivation in the manor, lying in fallow, and the residue consisting of open meadow, pasture or waste, or occasionally wood; the Hide being sometimes smaller than usual when there was an extra amount of ploughland in it, and invariably of extra size when wood or marsh was one of its components. In Saxon times we find mention of Hides or Cassatæ of twelve score acres¹, and Hides of six score acres²; but we do not find any clear distinction drawn between the two; and it would seem that they were but designations of *the same* Hide; the full Hide, “plena hida in terra, in campo, in silva” (*Lib. Eliens.* p. 140) being spoken of as a Hide of 240 acres, and the Hide in which the plough-land and enclosures alone were exactly measured, and where the *appendiciæ* were “thrown in,” so to speak, *i. e.* *implied*, but not included in the acreage, being called the Hide of 120 acres. When the measurement was that of an entire manor, not intermixed as to its arable land, pasture and wood with another manor, it could be taken in either measure, according to the local custom; but in intermixed manors³, and in manors where sub-infeudation had begun, the measure must of necessity have been taken according to the smaller standard, *i. e.* that of 120 or 80 acres; for in such manors the only quantity admitting of reckoning “by metes and bounds” would be what was held in severalty;

¹ See *Liber Eliensis*, pp. 132, 145, 147, 149. Stewart’s Edition.

² *Ibid.*, pp. 127, 150.

³ These intermixed manors, where the arable land, though separate in property, lay in the open fields in alternate strips (*seliones*), were known in Saxon times. The *Liber Eliensis* mentions a case of the sort in the Manors of Newton and Hawkston long prior to the Conquest: “*acra sub acra posita.*” Subinfeudation multiplied this intermixture; for instance in the gifts to the Abbey of Denney by Henry Picot and his son Aubrey, about A.D. 1150, there are specified (1) “*vi acras in villa de Beche (Waterbeach), duobus in quolibet campo*”; (2) “*ix acras terræ, tres in quolibet campo.*” See the quotation of the original grants in Dugdale, *Monast. Angl.* pp. 1552, 1553.

the pasture &c. not being divisible, but enjoyed in common proportionately to the arable holdings¹.

Hence, it is equally true, looking at local discrepancies, to say, with Selden, that "the Hide was ever variable;" or, having regard to the average of England, that the full Hide was, either by measurement or estimate, some 240 acres; or that it was usually about 120 measured acres (or less, very commonly only 80), with necessary, but unmeasured appendages.

In Cambridgeshire (excluding the Isle of Ely, which in Norman times would be mainly marsh, so that its present acreage can have little relation to its eleventh century hidation), we find 1102½ Hides set down in Domesday, and the area of the manors specified is now 296,331 acres: for the modern and ancient county are seen at once to have been conterminous². Hence, the average Hide of Cambridgeshire would seem to be 269 acres: but if we bear in mind that now much land exists, as in Soham, Cottenham, Waterbeach, &c. which was under

¹ There is a very interesting dissertation on the nature of common-rights in Marshall's *Rural Economy of Yorkshire*, Vol. i. ch. 5, London, 1788. Marshall's conclusion is that these rights attached by common law to arable land, rather than to dwelling-houses. See also the same view maintained by the late Joshua Williams, whose opinion is always most valuable, in Appendix C to his standard work *On Real Property*.

² Lysons, in his *History of Cambridgeshire*, says that the following parishes are not accounted for in Domesday: Bartlow, Brinkley, Coton, Eltisley, Mepal, Leverington, the two Newtons, Outwell, Tidd, Upwell. Outwell and Upwell are for the most part of their area *out* of Cambridgeshire. Leverington, Mepal, Newton in the Isle, and Tidd very probably were then under water. Eltisley *is* mentioned, under the name of Hecteslai. *Bercheham* of Domesday appears to be Bartlow, or Barham, a hamlet of Linton. Brinkley alone, outside the Isle, cannot be traced: but may like Coton and the other Newton be counted with another manor: for as to Newton, the *Liber Eliensis* tells us: "de Newetun terra procul dubio pertinet at Havekestun (Hawkston), acra sub acra posita;" and Coton was parcel of Grantchester, as we see from an entry in the *Liber Niger Scaccarii* of Henry II, where as part of the Honour of Bologne is mentioned: "de Geodo Gaufridi de Fereles Grantset cum quodam pertinente in Cotes."

water all the year round in A.D. 1086, and therefore would not be reckoned by the Commissioners, we may fairly accept 240 acres as the average Hide of Cambridge, as it was of Dorset, Somerset, Shropshire, Ketsteven, Sussex and Leicestershire.

If, however, we take separately each Hundred of the County, we find most remarkable differences in the average of the Hide, obtained by dividing the Domesday Hidage in each case into the modern acreage. The results are as follows :

Hundred.	Modern Acreage.	Hides in 1086.	Acres to the Hide.
Chesterton	15847	117½	135
Cheveley	12905	29	445
Chilford	21984	54½	403
Erningford	29641	100	296
Flendish	11786	46	256
North Stow	20572	108	190
Papworth	26089	95¼	275
Radfield	24008	69½	345
Staine	18917	54	350
Staplehow	40752	87½	466
Stow	26269	96	274
Triplow	16475	87	189
Wetherley	19144	77½	247
Whittlesford	11942	80½	148
	<u>296331</u>	<u>1102¼</u>	<u>269 average.</u>
Isle of Ely	233248	80½	2898 average.

The conclusion to be drawn is that holdings were more valuable per acre, because containing an excessive proportion of land under plough and in enclosure, in such Hundreds as Chesterton, Whittlesford, Triplow and North Stow, than in Cheveley, Chilford, Staine and Radfield, where the country was mainly woodland, or in Staplehow, or still more in the Isle of Ely, where marsh and mere prevailed. The acreage per Hide in the Isle of Ely is even greater than in the Lincolnshire provinces of Lindsay and Hoyland; in the former of

which it was a little more than 500 acres, and in the latter about 1000¹.

In many of the Cambridgeshire Hundreds the Hides closely approximate to the normal Hide of 240 acres: and in these we may conclude that the distribution of the various kinds of land was a fair sample of England generally, and these, therefore, will furnish the best examples of average rental and the like.

II. *On Caruca and Terra ad Carucam.*

In the Domesday of Cambridgeshire, as already noted, Carucates are never mentioned as synonymous with Hides; but the abbreviation *Car.*, so frequently recurring, denotes either the land which one team could cultivate, *Terra ad carucam*, or the team itself of eight oxen and the plough they drew, *Caruca*².

In passing I may remark that in counties where *Carucata* is used as another name for Hide, it designates sometimes an ungeldable Hide, *i. e.* one exempted from Danegeld; or sometimes is a Hide newly formed out of land previously ungeldable: or, on the borders of Wales, is land newly conquered, and therefore for the first time liable to taxation. In Lincolnshire, on the contrary, it is but the ordinary Hide, geldable or ungeldable. With *carucata*, however, in this sense, we have

¹ In Staffordshire the hides were very large, nearly 1500 acres on the average, if we divide the number of them into the modern acreage: but this is to be accounted for by the immense quantity of woodland, and of land thrown out of cultivation by Norman ravages. The same explanation would apply, no doubt, to the Northern Counties; but in these the record is so vague that a calculation of the acres to a Hide is all but impossible. See Eyton on the Domesday of Shropshire.

² That *caruca* does not mean the eight oxen only, but the oxen *and* the plough, seems evident from such entries as:

“Non sunt ibi nisi boves:” Croydon, Erningford Hundred:

“Sex boves ibi sunt, 1 caruca potest fieri:” Hochintone, Northstow Hundred.

nothing to do, when looking merely at the Cambridgeshire Domesday.

Terra ad carucam or *ad unam carucam* is simply the arable component of the Hide; amounting, as already said, usually to 120 acres, not unfrequently to 80 only, and perhaps sometimes to a little more than 120; but 80 is almost certainly its minimum. Agard's statement that a ploughland was sixty acres has been already commented on; and explained, I hope satisfactorily, to refer to the newly broken-up land, and not to all the land under the plough: and I think Marsh in his *Essex Domesday* has made a mistake in considering Agard to fix sixty acres as the *general* amount of *terra ad carucam*. Agard quotes only this one mention of 60 acres, and several of 120 for the *terra ad carucam*. Eyton¹ says: "Domesday nowhere expresses directly the acreage of a plough-gang; but in a few instances it is clear that it did not exceed, and probably equalled 120 measured acres." H. P. Wyndham² also writes: "The measure of a Carucata" (he means *terra ad carucam*) "differs considerably, not only in different counties, but even in the different parts of the same county. In some parishes it is no more than 100 acres, while in others it may be 140. I shall, therefore, take it upon an average at 120." And C. G. Smith speaks to the same effect in his *Introduction to the Domesday of Lincolnshire*, p. xxvii.

I have already mentioned some of the evidences from the Hundred Rolls, where the Hide and the *terra ad carucam* seem to be identical (the adjuncts of commonage being understood, but not expressed), showing the one and the other to be as a rule either 120 or 80 acres. To these I may now add some further estimates, obtained by comparing the total area stated either in the Domesday Book or Hundred Rolls for Cambridgeshire with the minute record of holdings of

¹ *On the Dorset Domesday*, p. 23.

² *On the Wiltshire Domesday*, p. viii.

sub-tenants in the latter; and I will end with some confirmatory indications from the Domesday, standing alone. Alberic de Ver, ancestor of the Earls of Oxford, had in Great and Little Abington $11\frac{1}{2}$ hides according to Domesday; the Earls of Oxford still held the whole of these manors in A.D. 1279, and their arable land was $1074\frac{1}{2}$ acres: so that the hide was a little over 90 acres. In Fulbourn the Earl of Richmond had $2\frac{1}{2}$ hides in 1086; his successor 200 acres in 1279; or hides of 80 acres. The same value for the hide, i.e. the *terra ad carucam*, is found in Fulbourn, where the lands of John Fitz-Waleran (6 hides) had passed to Bigot of Norfolk (480 acres). In Burwell the hide is similarly made out to be 131 acres, but seems to consist of crofts and tofts as well as plough-land, so being probably 120 acres of plough-land. In Bourne the Abbot of Ramsey's Domesday Hide is represented in the Hundred Rolls by 77 acres; and in Cottenham in A.D. 1279 we have a hide held under Robert de l'Isle, described as $45\frac{1}{2}$ acres in demesne and $34\frac{1}{2}$ acres held by tenants: whilst the Rector's manor of 2 hides has 78 acres held by himself and $77\frac{1}{2}$ by his tenants. In Stow 2 virgates, i. e. (as will be hereafter shown) half a hide, contain $63\frac{1}{2}$ acres. There is a virgate mentioned in Hawkston in A.D. 1279 of 24 acres; one in Shepreth of 36 acres.

And now to pass to Domesday itself, without seeking further corroboration in the Hundred Rolls or elsewhere. In Pampisford, Chilford Hundred, we have mention of a total holding of 10 acres with one bovate of arable land, and nothing more specified: this, as eight oxen went to the team, denotes 80 acres to the *terra ad carucam*. There is a similar entry in Kingston, Stow Hundred; another in Hardwick, Stow Hundred. In Hokington, North Stow Hundred, 15 acres with 1 bovate and no adjuncts; 40 acres with 4 bovates in Isleham, Staplehow Hundred: 80 acres with one *terra ad carucam* in Balsham, Radfield Hundred. Other instances could be

mentioned: but these seem enough to show, what is now being alleged, that the *terra ad carucam* was 80 or 120 acres usually, seldom more than the latter number, never appreciably less than the former.

Here it seems proper to remark that *terra* in Domesday occasionally means land generally; but more often arable land only. In the latter sense it is, I think, used, when *small* plots of land, such as those just referred to, are assigned to tenants, and described merely as so many acres, and not as Hides or Virgates or fractions thereof. To these sometimes, perhaps usually, rights of commonage were annexed as a matter of course, unless the grant was express to the contrary, and of these restricted grants the above-named holdings seem examples. But more often land and commonage went together, so that a right to land, not restrained by covenant, implied also a right to a due proportion of feeding on the common land of the manor.

A very important question now arises, not perhaps as to these smaller holdings, which sometimes were merely of arable land, but as to the entire manors, or large grants out of them; whether the *terra ad carucam* denotes the land which *from time to time* was ploughed, or the land actually ploughed in any *single year*. I believe it to mean the latter¹; and that consequently the difference of *terra ad carucam* of 80 acres

¹ Since this paper was read to the Society, I have met with a remark of Benj. Williams Esq. in the *Archæologia*, Vol. 33, p. 278, which confirms this view. He writes: "at present (in the Manor of Aston and Cote in Oxfordshire.) the system of agriculture is the four-course,—wheat, beans, oats and fallow: but two centuries ago, the three-year course was followed, with fallow every third year. It is important to remark that this circumstance affected the number of acres which were allotted to the hide in different shires," (I should say in smaller districts,) "for in all inquests *post mortem* no value was returned for the portion of the hide that lay in fallow (*ad warectum*), and we may fairly presume that the like rule obtained in public contributions to the king." He adds: "thus Mr Horde values '22 acres in Holiwell Field at 10/- per annum, 2 years sowed in 3, comes to pr. annm. but £8.'"

or 120 acres distinguishes the manors under a two-fold course of cultivation, one crop and then a fallow, from the manors under threefold course, *i. e.* two crops and then a fallow¹. In the two-course manors, taking the hide at 240 acres as an average, but not forgetting how much it varied, there would be 80 acres under plough, *i. e.* the *terra ad carucam*; 80 of arable land, but laid in fallow; 80, more or less, of sheepwalk, pasture and wood, never broken up: whilst in the three-course manor there would be 60 acres bearing a second corn-crop, 60 just brought into cultivation from fallow, these two being the *terra ad carucam*; together with 60 arable, but laid for the year in fallow; and 60, more or less, never cultivated, and only used for pasturage. On this hypothesis we can explain the new force of the term *Carucata*, as used by Fleta, who speaks of carucates of 160 acres, and carucates of 180 acres, expressing thereby the Plantagenet view of "arable land," as land arable *in its due course*, whether used or not in any particular year; *i. e.* the Domesday *terra ad carucam* of 80 acres or 120 acres, together with the "idle shift;" which in the one kind of manors would be another 80 acres, and in the other kind an extra 60 acres. This new application of "carucate" or "*terra ad carucam*" exhibits itself in the Hundred Rolls, where we have, for instance, mention in Stow of a carucate of 160 acres, 2 of these carucates going with 2 hides; and in Comberton of John le Merk's holding, wherein the items amount to 23 half virgates of 15 acres + 16 acres in small plots, and are set at 2 carucates, so that the carucate is as nearly as possible 180 acres. The *virgate*

¹ See Fleta II. 72 *De officio communis senescalli*.

Item certificetur in primo adventu suo de custagiis carucarum in quocumque manerio, quæ sciri poterunt per hanc rationem, ut terræ sint tripartitæ, tunc nonies viginti acræ faciunt carucatum, eo quod lx in hyeme, lx in quadragesima, et lx in æstate pro warecto debent exarari.

De terris vero bipartitis debent ad carucam octies viginti acræ computari, ut medietas pro warecto habeatur, et medietas alia in hyeme et quadragesima seminetur, et proinde de numero carucarum de facili poterit certiorari.

too, which etymologically merely means a *quarter*, was in the Hundred Rolls sometimes a quarter of a Carucate (in the new sense), rather than a quarter of a Hide, and so we account for the mention of virgates of 40 acres (in two-shift manors) at Barrington, Orwell and Wimpole.

An objection may be made to this theory on the ground that, if Fleta's 'carucate' be taken to mean the amount which a team of eight oxen could keep in cultivation (and that I certainly contend it does), then, as a team in a two-course manor could only work 80 acres each year, or keep 160 in constant cultivation, therefore a similar team in a three-course manor would be overworked, if they had to plough 120 acres each year, as they would have to do to keep 180 in constant cultivation. The reply is that land freshly broken up out of fallow required ploughing *twice*, whilst land cropped one year in wheat and the next in barley required only one ploughing for the second crop, and was in a much more workable condition than the other. The ploughing out of fallow in the summer (*ad warectum*) would be twice as hard work as the second ploughing of the same land about Martinmas (*ad hibernagium*), and twice as hard as ploughing wheat stubble in preparation for a barley crop (*ad tramesium*), in the early spring. Thus, the work done by the oxen in ploughing an acre being represented by x , the one team would in the year do work equivalent to

$$2x \cdot 80 \text{ (ad warectum)} + x \cdot 80 \text{ (ad hibernagium)} = 240x,$$

and the other

$$2x \cdot 60 \text{ (ad warectum)} + x \cdot 60 \text{ (ad hibernagium)} \\ + x \cdot 60 \text{ (ad tramesium)} = 240x,$$

identically the same; granting the assumption (I think a fair one), that ploughing out of dead fallow is twice as hard as ploughing land already once ploughed or quite lately cleared of a crop.

III. *On Domesday Acres.*

It is, next, necessary to consider whether the acres of the Cambridgeshire Domesday are the same as our modern acres or different. It is well known that there was in Norman times what was called a *Gheld Acre*, twelve of which made a virgate, and therefore 48 a hide, assuming for the present that a virgate is a quarter hide. The acre, however, ordinarily used was the present statute acre of 160 square poles; though in Kent, at any rate, the linear pole was only 16 feet instead of $16\frac{1}{2}$ as at present. But possibly this was only a local variation, and the ancient acre seems to have been practically the same as our modern acre. If the Hide be, as suggested, 240 statute acres, the Gheld acre would be 5 statute acres. In the South Western counties the Gheld acre was often the unit, and Eyton (*On the Domesday of Dorset*, p. 15), advances the opinion that it was employed when measuring an entire manor, whilst small allotments were set down in the Domesday in statute acres. In Cambridgeshire it is sometimes difficult to settle which kind of acre is intended, but on the whole it would appear that the Juries of the several Hundreds (whose names are recorded in the *Inquisitio Eliensis*) were consistent in using only one measurement throughout their returns, but that some of them used the one and some the other. And it would also seem that the Juries where Hides were extensive in area used the Gheld measure, possibly to simplify their numbers; whilst the Juries of the Hundreds with small hides used statute acres, to avoid fractions.

On reference to my lists of holdings, which accompany this essay, it will be observed that in three Hundreds, Erningford, Flendish and Whittlesford, acres are not mentioned at all,

and that in Papworth the two entries where they occur are inconclusive. But in Stow Hundred there are one or two entries which must relate to ordinary acres. We have, for instance, in Hardwick land containing 3 hides + a virgate + 12 acres; but, if Gheld acres had been meant, 12 are a virgate, and the entry would have been 3 hides, 2 virgates, or more simply $3\frac{1}{2}$ hides. In Caldecote too, in the same Hundred, the virgate + 20 acres of David would be a strange entry, if in Gheld measure, the 20 acres being much larger than the virgate. So, again, in Triplow Hundred 9 hides + 24 acres, would be $9\frac{1}{2}$ hides, unless the acres were of statute kind. In Staine Hundred $\frac{1}{2}$ hide + 30 acres must also be in statute measure: and it is curious that in this Hundred, where the hides are so large, the measurement should not be Gheld; but possibly much land was then permanently flooded and not measured, and therefore the hides would be smaller than we have concluded by comparison of the hidage with the modern acreage.

There is no need to multiply instances: in Staplehow Hundred, at Isleham (Gisleham) there is a pretty clear proof of a measurement in Gheld acres; and so also at March, 16 acres, which contain half a carucate of arable land, must be Gheld. The conclusion, then, seems to be that statute measurement was employed throughout the county, even for the Manors, except in the four Hundreds of Chilford, Radfield, Cheveley and Staplehow, where marsh and wood were prevalent, and the hides consequently extensive: and in the Isle of Ely for a like reason.

It has already been shown pretty fully, I hope, that the hides of Cambridgeshire were from 80 to 120 acres in area both in A.D. 1086 and A.D. 1279. The proof may be completed by reference to twenty-seven entries in our Domesday; where, by comparison of the land held by a Norman and specified in one sum, with the separate holdings of the Saxons to whose

rights he had succeeded, we can see either the number of virgates to a hide, or the number of acres to a hide. These entries are numbered (1) to (27) in the Table on the next page. The first 14 of them obviously accord with the hypothesis of the hide being 4 virgates. Those numbered (15), (16) and (17) are as evidently set down erroneously, whatever be the relation of the hide to the virgate. In (16) a hide seems to have been omitted in one of the Saxon amounts: and in (15) and (17) there are clearly clerical blunders. Perhaps (18) is an approximation; for $3\frac{1}{2}$ hides are only half a virgate in excess of 1 hide + $9\frac{1}{2}$ virgates. In Comberton the entry (19) is an approximation, but in the entry (20) 4 virgates seem to be too far off a hide-less-twenty-acres to be correct, and yet a virgate in several parishes round Comberton was equal to 20 acres, according to the Hundred Rolls, and in Comberton itself we learn from the same authority that a hide was 100 acres, *i. e.* five score. Therefore the Domesday entry appears curiously to prove itself right, there being some local custom of 5 instead of 4 virgates to the hide. Entry (21) is clearly another approximation. Thus there seems a large preponderance of proof that 4 virgates made a hide almost everywhere in Cambridgeshire, the exceptional case at Comberton being explained by the supposition that 5 virgates of some old Saxon standard were equal to a Norman hide, but had been each the fourth part of a Saxon hide. See Kemble, *Anglo-Saxons*, Vol. I. App. B. p. 493.

The entries (22) to (27) enable us to compare hides or virgates with acres. The hide clearly = 120 acres in (22) and again in (26) and (27); and in (23) it is 128 acres. In entry (24) the hide appears to be rather small, *viz.* 98 acres; if we suppose the acres on either side of the equation to be statute acres: but it has already been suggested that in Radfield Hundred the Norman Jury used Gheld measure, occasionally at any rate: and so, rewriting the entry into statute acres only, 46 statute acres = $\frac{1}{2}$ hide less 15 statute acres, or the hide is 122

TABLE ILLUSTRATING THE EXTENT OF A HIDE IN CAMBRIDGESHIRE.

Vill.	Hundred.	Saxon holdings.	Norman holdings.
(1) Horseheath.....	Chilford	$1\frac{1}{2}v + \frac{1}{2}v$	$\frac{1}{2}h$
(2) Croydon	Erningford.....	$h + h + 5v$	$3h + v$
(3) Litlington	"	$\frac{1}{2}h + \frac{1}{2}v$	$2\frac{1}{2}v$
(4) Impington	North Stow	$(h + v) + (2h + v)$	$3\frac{1}{2}h$
(5) Milton	"	$(6h + 3v) + (4h + 2\frac{1}{2}v) + 2\frac{1}{2}v$	$12h$
(6) Landbeach	"	$(2h + 3v) + 2h + h + v$	$6h$
(7) Over.....	Papworth	$\frac{1}{2}h + 3v + h$	$2h + v$
(8) Swaffham.....	Staine	$3v + (h + v) + (h + v)$	$3h + v$
(9) Trumpington	Triplow	$(h + 3v) + v$	$2h$
(10) Hawkston	"	$3v + 3v$	$1\frac{1}{2}h$
(11) Duxford	Whittlesford	$7v + 3\frac{1}{2}h + \frac{1}{2}h$	$5h + 3v$
(12) Whitwell.....	Erningford.....	$5v + \frac{1}{2}h + v$	$2h$
(13) Hochinton	North Stow	$(\frac{1}{2}h + 9a) + (h + 3v) + (1\frac{1}{2}h + 10a)$	$(3h + v + 10a) + (\frac{1}{2}h + 9a)$
(14) Dry Drayton	Chesterton.....	$(2h - \frac{1}{2}v) + 1\frac{1}{2}h + (h + \frac{1}{2}v) + (h + v)$	$5h + 3v$
(15) Meldreth	Erningford.....	$2\frac{1}{2}h + (2h + \frac{1}{2}v) + \frac{2}{3}v$	$5h + 1\frac{3}{4}v$
(16) Eversden	Stow	$(h + 3v) + 3v + h + (1\frac{1}{2}h + 10a)$	$6h + 10a$
(17) Barrington	Wetherley.....	$(4h + 1\frac{1}{2}v) + (2h + \frac{1}{2}v) + h + 3v + \frac{1}{2}v$	$7h + 2\frac{1}{2}v$
(18) Morden	Erningford.....	$(h + 3v) + 3v + 3v + \frac{1}{2}v$	$3\frac{1}{2}h$
(19) Comberton	Wetherley	$(h + v) + 3v$	$2h + 2a$
(20) "	"	$v + 1\frac{1}{2}v + 1\frac{1}{2}v$	$h - 20a$
(21) Waterbeach	North Stow	$(3v + 12a) + 3v$	$1\frac{1}{2}h + 10a$
(22) Shelford	Triplow	$(2\frac{1}{2}h + 9a) + (1\frac{1}{2}h + 6a) + \frac{1}{2}h + \frac{1}{2}h + (v + 7a) + 3\frac{1}{2}v$	$6h + v + 7a$
(23) Kingston.....	Stow	$(2h + 1\frac{1}{2}v) + v + 3v + v + 2h$	$5\frac{1}{2}h + 16a$
(24) Carleton	Radfield.....	$38a + 8a$	$\frac{1}{2}h - 3a$
(25) Hochinton	North Stow	$15a$ in Domesday replaced by 1 <i>virg.</i> in <i>Inq. Eliens.</i>	
(26) Hatley.....	Stow	The total holding is one hide, of which the Lord has $3v + 10a$ in demesne and 3 bordars have $20a$.	
(27) Hillrow	Ely	The total holding is two hides, of which there is in demesne $h + v + 10a$ and the villeins have $80a$.	

statute acres. Entry (25) is in itself inconclusive, but I mention it because the *Inquisitio Eliensis* gives the same holding as "1 virgate:" a mistake of the scribe, fortunately most easy to correct, for we not only have in Hockington 15 acres with 1 bovate in Domesday itself; or by consequence a hide of 120 acres; but the valuable Record of 18 *Edw. I.*, quoted above on p. 10, shows that the inference of the hide being 120 acres there is a certain fact. This instance may serve as an useful hint to take the Domesday figures in preference to those of the *Inquisitio Eliensis*, when there is a discrepancy. The *Inquisitio*, I believe by comparison with the Domesday to be wrong in 14 discordant entries; the Domesday being in all of them consistent with itself, and the *Inquisitio* frequently not.

IV. *On Bovates.*

We never find bovates mentioned in Domesday except in reference to the purely arable land, whereas virgate is a subdivision of the hide in any of its senses. On all hands it is admitted that a bovate was the eighth part of a carucate in the Conqueror's time: though in later times teams were not so universally made up with eight oxen, and we have bovates of very varying sizes in the year 1641, as witness Best's *Farming Book*, p. 166, &c. So also, as Ellis states in his Introduction, a bovate at Doncaster was only 8 acres—presumably therefore had at least ten oxen to the team; though as a rule 16 or 17 acres was the amount of a bovate in Yorkshire, with the carucate therefore considerably over 120 acres; as is proved by a Record, *Trin. 26 Edw. I. Ebor. de Banco.*

There is, perhaps, one isolated indication in the Cambridge-shire Domesday of teams of more than eight oxen in the Conqueror's time, viz. in Barrington, Wetherley Hundred, where we find mention of 40 acres with 6 bovates arable, and 20 acres with 3 bovates arable. I should take this to mean 40 acres in

cultivation, six oxen doing the work. According to the Hundred Rolls the virgate at Barrington was 40 acres; which indicates that they measured not by hides, of land actually under plough, but by carucates, made up as to one half of land under the plough, and as to the other of arable land lying in fallow. The Domesday mentions meadow attached to both the holdings above named; and this too is confirmed by the Hundred Rolls, where a so-called half-virgate, which should be 20 acres, is found to have 22 acres + 5 rods, the 2 acres possibly being the meadow, and the 5 rods the homestead and croft.

V. *On Hidation.*

The Hidation of the Domesday Book, as already mentioned, is that of Ethelred's reign, and doubtless represented, when it was made, the intrinsic value of the majority of English Manors. By testing the few instances in Cambridgeshire where the hidage and the carucage are alike in Domesday, we are led to suppose that a normal hide, i. e. one having *terra ad unam carucam* exactly, neither more nor less, and furnished with proper adjuncts of pasture, &c., was valued at £1 revenue. Munford in his *Domesday of Norfolk*, gives a list of the acreage and value of the glebe lands in that county, as stated in Domesday, and it is remarkable how often the estimate is exactly one penny per acre, or £1 per hide of 240 acres. Eyton, on p. 46 of his *Domesday of Somerset*, twice quotes purely arable land as worth two pence per acre, and once as worth 2½d. Pasture he puts at $\frac{2}{15}$ d. per acre.

But some Manors would be assessed from the very first beyond their acreage, because of being advantageously placed for commerce, or because they were the seats of the lucrative Hundred Courts, or exempt from Hundred jurisdiction and having Courts of their own, or for other reasons.

Some Manors, again, would be rated below their value, through favour of the King and Witan. Hence, the original valuation seems to have had for its characteristics:

- (1) Normal Hidation at the rate of £1 per hide:
- (2) Onerous Hidation for Manors having special advantages:
- (3) Advantageous Hidation for favoured Manors.

Advantageous hidation appears to have grown more prevalent as time went on; so that eventually large quantities of land were exempted from Danegeld. The rectifying of this abuse, as well as the increased rateable value of much land through improvement in cultivation, were pretty surely among the reasons which led the Conqueror to order a new survey. Webb gives some remarkable extracts from the Exeter MS. showing the extent of Advantageous Hidation, and the frequency of total exemption¹. In the *Inquisitio Eliensis* we find

¹ These are as follows:

“*Dorset*. In Etheminstre Hundred are 47 hides and the Bp. of Sarum has land enough for 6 teams. Thereof the Barons have in demesne 6 hides, 1 virgate, and 6 carucates, that is the six carucates of the Bp. of Sarum, 3 hides and 1 virgate of Roger Arundel, and 3 hides of Bristuin. The King has £12, less 18 pence, from 40 hides, less a virgate. And the King never had anything from the half hide which Urso de Arnulfo holds: and *this year* the King has no gheld from the half hide which Dedeman holds of the Earl of Montaigne.” Hence we have an old exemption, and a newly-created one.

“*Somerset*. In Cumgresberie Hundred are 19 hides. The King has therefrom 13s. 6d. for 2 hides and a virgate. The King and the Barons have in their own demesne 5 hides and 1 virgate. Of this the King has 3½ hides in demesne; and Ordric 3 virgates, and Ordulf half a hide, and Alward half a hide; and the King has no gheld for 11 hides which the villains of the King in Cumgresberie hold: and for half a hide, which the villains of the Church of Cumgresberie hold, the King has no gheld.” Hence, says Webb, the King had no gheld for large proportions of many hundreds, of which are abundant instances in the S.W. Counties, as 50 taxable out of 113, 50 out of 104, 9½ out of 25, 13 out of 34½, 14½ out of 52, 8 out of 44. See Exon. MS. p. 4 a.

abundant instances of the same kind, some of which are also noted in the Cambridgeshire Domesday. We have, for example, Wood Ditton with 16 carucates of plough-land, assessed at 10 hides T. R. E., and one hide T. R. W.: Ashley with 4 carucates, Silverley with 8, assessed respectively at $3\frac{1}{2}$ and $6\frac{1}{2}$ hides T. R. E., and 2 and 4, T. R. W.: and these are but a few specimens out of many.

Hence we see, first, why the hides in demesne are so carefully separated in Domesday from the others, viz. because they were exempt from Danegeld (as the Charter of Henry I. also states), the tenants serving personally in case of war: secondly, what is the significance of the phrase "se defendit," viz. that a manor was hidated abnormally, generally on Advantageous Hidation, but sometimes on Onerous. Where a Manor is marked *M* in the Record, which is the case when it is the Capital Manor of several included in a vill, this abnormal hidation is sometimes implied without being expressed; as also it is occasionally in respect of smaller holdings carved by sub-infeudation out of such a manor, and feoffed to sub-tenants on equally favourable terms.

VI. *On the Domesday Valuation (Valet) of Manors and Holdings.*

It has been suggested by Archdeacon Hale that the *valet*, with which each Domesday entry concludes, is merely the render of those tenants who did no service personally on the Lord's lands. This view is received by Nasse with a certain degree of approval; both these great authorities laying stress on the consideration, that if the Domesday Book contains an exhaustive list of all the tenants, free as well as serf, it is most difficult to account for the enormous increase of free tenants observable in the Hundred Rolls of 17 *Edw. I.* But, whatever be this difficulty, nothing could be more explicit than the

Conqueror's instructions as to the subjects of inquiry and inrotulation, preserved at the commencement of the *Inquisitio Eliensis*. An account of the free-tenants, as well as of the soke-men, is demanded, and a return as to each manor "quantum valebat totum simul¹."

With regard to the valuation in the Conqueror's time, we may observe that it is expressed in Domesday by three phrases, "valet," "in totum valet," "in totis valentiis valet;" and that the last expression occurs only when there are some hides in demesne, not when all are portioned out to tenants; which, to me, appears to indicate in the most pointed manner that the estimate includes the value both of the demesne land and of the tenant's land, and not of the one without the other: *i. e.* that *valet* denotes the income reasonably to be expected from the land, whether in hand or sub-let. If a tenant merely paid a money rent, there seems no reason for his being personally entered on the record, though his render must have been included in the *valet*; but if he performed services only, or gave services as well as money, he needed to be enumerated, as he himself was one of the elements of value to the manor, just as much as the working teams were. The great objection, however, to Archdeacon Hale's theory of the *valet* is the arithmetical difficulty which it introduces: for, supposing it to be accepted, we ought to be able to arrive at a fair average value for the hide, if we deduct from the total number of hides in a manor those hides which are in demesne, and divide the remainder into the *valet* set down: for the *valet* being, on his hypothesis, the worth

¹ The topics of inquiry are these:

Quomodo vocatur mansio; quis tenuit eam tempore Regis Edwardi, quis modo tenet; quot hidæ, quot carucatæ in dominio, quot hominum; quot villani, quot cotarii, quot servi, *quot liberi homines, quot sochemanni*; quantum silvæ, quantum prati, quot pascuorum, quot molendina, quot piscinæ; quantum est additum aut oblatum; *quantum valebat totum simul, et quantum modo*; quantum ibi quisque liber homo vel sochemannus habuit vel habet.

of the free-tenants' hides only, by the subtraction we shall arrive at their number, and by the division at their value. But try this, say, on the first four Hundreds taken alphabetically, i. e. Chesterton, Cheveley, Chilford and Erningford, and we get values ranging from £20 per hide in Wickham, £7 to £9 in Litlington, Silverley, Kirtling, Linton, through all gradations, to 23s. in Histon, and 24s. in Cottenham.

The better plan seems to be to form some hypothesis by comparison of a good number of entries, and then test it by seeing whether it accords with other entries not employed in this original calculation. From the careful mention of carucates (I use this word for convenience frequently, as equivalent to *terræ ad carucam*), I think the Conqueror and his Commissioners had already an idea of taking these as the basis of a new system of taxation, because representing much more closely than the hides the taxable value of the manors: but other modifying considerations, no doubt, were within their view.

I should therefore suggest these rules, which I find apply almost always satisfactorily to the entries in Cambridge-shire:

I. The valuation is rather on the carucates, or land under plough, than on the hides: and this explains why, after A.D. 1163 or A.D. 1194, hidage taxation was abandoned, and taxation levied on the carucate¹.

¹ "In 1163 the ancient Danegeld disappears from the Exchequer Rolls...Under Richard the same tax reappears under the name of Carucage: the normal tax being laid on the Carucate instead of the Hide, and each carucate containing a fixed extent of one hundred acres." Stubbs, *Const. Hist.* Vol. I. p. 582. The last statement of Stubbs comes from Hoveden, iv. 47, and he, no doubt, intends six score by his "hundred." Thus "carucate" in Richard's time was, as already said, not the same as Fleta's carucate.

"The Scutage affects the tenants in chivalry: the donum, hidage or carucage all holders of land." Stubbs, *ibid.*

II. The value of a carucate, duly furnished with adjuncts of meadow, pasture and working cattle, *i. e.* a normal hide, in a manor where hides and carucates are equal in number, is 20s.

III. When the carucates of a manor are in excess of the hides, the valuation rises, though not, as a rule, to the extent of 20s. for each extra carucate.

IV. Ploughland without teams is of little value: but teams in excess of the ploughland are estimated; for their existence proves that they had some employment other than agricultural.

V. An excess of slaves is generally a cause of considerable increase.

VI. An excess of serfs, whether *villani*, *bordarii* or *cotarii*, is also a cause of increase, but not to the same extent as an excess of slaves; the reason clearly being that a slave could be employed as his owner pleased, whereas a serf was only bound to render *certain* services, and *on the manorial land*.

VII. The value of mills¹ is always stated, and must be deducted from the total *valet* of a manor, before applying the foregoing rules.

VIII. The manor in which the Hundred Court is held is always rated more highly on that account; and sometimes the Hundred Court appertains not to one, but to two or more manors adjacent one to the other.

IX. The manors included in the great Baronies are often exempt from Hundred jurisdiction and have courts of their own, which adds to their value to the Lord.

X. Wood adds to the value of a manor; and *silva unius porci* seems to be worth about two pence. This peculiar mode

¹ Mills in Domesday are, of course, water-mills. Wind-mills were unknown till the Crusaders borrowed the idea of them from the Saracens.

of calculating woodland, *i.e. tot porcorum*, is rarely found except in Cambridgeshire and Bedfordshire, wood being in other counties usually reckoned in length and breadth, by leagues, quarentines and linear acres. Some authorities consider it to have been almost valueless; but if so, it is difficult to account for its being so carefully mentioned. We may roughly arrive at the enlargement in the hide caused by the presence of woodland, thus: if a normal hide in the Hundreds of Radfield, Chilford or Cheveley be taken at 240 acres, the excess caused by the presence of wood in these Hundreds is 8784, 7408 and 5945 acres respectively, and we find this wood described in Radfield as 1050 hog-walks, in Chilford, 857, and in Cheveley, 614; whence we deduce that *silva unius porci* is $8\frac{1}{2}$, 9 or 10 acres. Roughly, therefore, wood to the extent of one hog-walk augments the hide by 9 or 10 acres; say 10, so that a hide with pannage for one hog would be 250 acres, with pannage for 10, would be 340, and so on: and this, supposing as we must that the hide still remained worth £1, would accord with Eyton's estimate (obtained in quite another way), that woodland was worth about $\frac{1}{6}$ of a penny per acre, or that six acres of wood were worth one acre of average land, or half an acre of ploughland. The mention of *silva porcorum* in Cambridgeshire is confined to the three Hundreds just named, with the exception of two or three entries in Stow Hundred, the same number in the Isle of Ely, and one in Erningford Hundred. Elsewhere we have mention of *silva ad sepes reficiendas*, or *ad sepes claudendas*; not so often *ad sepes et domos* (haybote and housebote), once only *ad domos curiæ*, and once *ad sepes et focum*. All these expressions imply a smaller area of wood, and possibly of wood not mast-bearing, *i.e.* not oak or beech.

VII. *On the Population of the County.*

The cultivators are found to be as follows¹:

Hundred.	Villains.	Bordars.	Cottars.	Serfs, total.	Slaves.	Free tenants. counted.	named.
Chesterton	98	63	63	224	11	1	+ 6
Cheveley	79	45	—	124	23		4
Chilford	163	84	—	247	52	10	+ 12
Erningford	116	221	94	431	41	15	+ 18
Flendish	80	81	4	165	24	26	+ 2
North Stow	106	118	127	351	20	6	+ 10
Papworth	99	94	55	248	37	42	+ 8
Radfield	121	97	—	218	38	9	+ 6
Staine	85	43	—	128	39	3	+ 5
Staplehow	205	131	—	336	68	18	+ 7
Stow	128	106	90	324	39	25	+ 6
Triplow	161	80	24	265	30	13	+ 6
Wetherley	111	169	117	397	26	16	+ 13
Whittlesford	99	72	—	171	18	1	+ 8
	1651	1404	574	3629	466	185	+ 111 = 296

¹ To these totals must be added for the Isle, 277 vill. 17 bord. 171 cott. 95 slaves, 63 free tenants.

My totals differ somewhat from those of Ellis and Turner:

	Tenants in Capite.	Freemen in the County.	Freemen (Burgenses) in Cambridge.	Villains.	Bordars.	Cottars.	Slaves.
Ellis	45	511	29	1907	1423	739	
Turner	42	373	295	1898	1436	742	563
Walker		359	{ 297 taxable 33 untaxed	1928	1421	745	561

The 511 freemen of Ellis include those whom he designates, "under-tenants, francigenæ, homines, milites, milites Francigenæ, piscatores, presbyteri, sochemanni:" the 373 of Turner are classified by him as, "tenentes, sochemanni, piscatores, *moldarii*, *silvatici*, *porcarii*," though of the said *moldarii*, *silvatici* and *porcarii* I can find no mention in Domesday.

I omit the tenants in capite, for it is impossible to decide which of them were resident: and in the "freemen" I include in each Hundred, with those merely *counted*, those also who are *named* as sub-tenants for the *first* time, omitting those who have obviously been mentioned in a preceding Hundred or Manor.

Hence, as the number of hides is $1102\frac{1}{4}$, there are to each hide about $3\frac{1}{3}$ serfs and $\frac{2}{3}$ of a slave, or not quite 4 cultivators, excluding the freemen; with the freemen as nearly 4 as possible. To enter into the differences between Villains, Bordars and Cottars is not part of my present purpose; but it seems clear that whatever was the distinction between Villains and the other two classes of serfs, there can have been little between Bordars and Cottars; for entries specifying the one in Domesday are often replaced by entries of the same number of the other class in the *Inquisitio*; and the absence of Cottars from six of the Hundreds above catalogued can scarcely be explained, except by supposing that the Jurors drew no distinction between them and Bordars.

VIII. *On the Minor Incidents of Value.*

Meadow, *pratum*, denotes sometimes grass-land permanently enclosed, sometimes land only enclosed in the spring-time till hay-harvest, and during the rest of the year common. It seems to have been scarce and valuable, and sometimes is measured in acres, but more often is described as enough for a specified number of teams, or as *pratum carucis*, "sufficient for the existing teams." We have only two instances in the Cambridgeshire Domesday where a larger number of *acres* of meadow than 4 is mentioned, viz. 5 acres in Cottenham and 12 in Balsham. Hence, it is possible that 5 or 6 acres was the meadow "for a team;" and that it could not be much more is highly probable by comparing, where identity is clear, the Domesday mention of carucates of meadow with the acres of the Hundred Rolls¹.

¹ Eyton, to prove that meadow was scanty and valuable, has shown that in Dorset only about 600 acres can be found in Domesday out of 126,000

Pastura is grass-land never enclosed: and is described as *ad pecuniam villæ* when the cattle of the Lord and of his tenants fed on it together, and *ad suam pecuniam* when reserved for the Lord's cattle only. *Ad pecuniam* is ambiguous, but probably means the same as *ad suam pecuniam*.

Mills were valuable, because the tenants of the Manor, and sometimes those of adjacent manors, were under obligation to grind there: hence even the *molendinum confractum* at Duxford, or the *molendinum nihil reddens* at Lolsworth, was worth enumerating as a contingent source of revenue. The millers, serfs no doubt, were often required to feed a certain number of swine for the Lord, besides paying him rent; as at Fordham and Shelford.

Fisheries were numerous and valuable, as we should expect; and their revenue was usually in eels; though sometimes there was a money rent as well, or a money rent only. Generally the entry is, so much *de piscariis*; but now and then *de gurgite*, i. e. "from the stream;" once *de dim. gorch*, or "from half the profits of the weir:" *de theloneo retis*, "from toll of the net" in Swaffham. *Sagenæ*, or seine-nets, are paid for in Soham and Snailwell: and at Soham too there is as a source of revenue, *una navis quæ piscatur in mara per consuetudinem*.

We have frequent mention of renders in kind: *soci*, ploughshares, together with 400 eels, as the render for a marsh in Bottisham: *soci* for a right of wharfage, *de portu*, in Aldreth or Hillrow; for pasture in Cherry Hinton and Great Abington. Eels also are the render for pasture in Soham, and for meadow in Isleham, and, of course, frequently for a marsh. A sextary of honey was a Saxon render in Histon.

Although leases for years (or life?) were not yet very com-

acres of Royal Demesne; and that in the Hundred of Cogdean there were only 479 acres of meadow in an aggregate of 29,000.

In Leicestershire, as Nichols shows in his tables, there were 4791½ acres of meadow, the County containing 514,164 acres.

mon, we have instances of them, *i. e.* grants *ad firmam* in Litlington, Fulbourn and Wood Ditton. The herbage was let for a money rent at the same Wood Ditton, at Camps and at Croxton; also a portion of the meadow at Shingay. The sedge, *juncci*, brought in 16^d a year at Wilberton, the marsh and the carts were both put out at hire in Cherry Hinton. Some of the incidents first named appear to be the beginning of the claim of the Lord to use for his own profit superfluous common; which ultimately was made a legal right by the Statutes for assarting passed in A.D. 1236 and 1285.

Amongst miscellaneous entries we may note a warren, *wara*, in Hinxton; *iii arpendi vineæ*¹ at Ely; a deer-park, *parcus bestiarum silvaticarum* at Burch in Radfield Hundred, and another at Kirtling; churches, *i. e.* I suppose, advowsons, at Teversham, Meldreth and Shelford; and gardens at Cottenham, Clopton, &c.; whilst cottars are frequently described as *cotarii de ortis suis*.

The pecuniary renders are almost invariably set down in pounds, shillings and pence, but we have three or four mentions of *ores*², and one of an ounce of gold, in Weston, Radfield Hundred. And with these anomalous coins, or estimations, may be mentioned an anomaly of measurement in the "half hide of meadow" at Stetchworth in Radfield Hundred; as much a solecism as the hide of pasture noted by Eyton in the survey of Corseham in Dorset, or the "8 hides of pasture and a half hide of wood" in the account of the Devonshire lands of the Church of St Mary at Rouen.

With regard to the mention here and there of *libræ arsæ et pensatæ* and *libræ ad numerum*, we have Madox' statement, that

¹ Du Cange says *arpenna* or *arpendus* is a plot 170 feet × 120 feet, *i. e.* nearly half an acre.

² It seems certain that *oræ* or *ores* were not actual coins, but ounces, *i. e.* the twelfth part of a pound, worth therefore twenty pence each. A shilling also was not a coin, but twelve pence; a silver penny being a coin about as large, though only half as heavy, as a modern sixpenny piece.

when rent was to be paid in “pounds *burnt and weighed*,” the coins tendered were melted at the Exchequer, or 6*d.* or 1*s.* additional exacted per £, to compensate for the alloy and the waste by wear and tear. He also says that *libræ ad numerum*, *libræ albæ*, *libræ de denariis albis vel candidis* are equivalent, and denote the current coin of the realm.

In the lists which accompany this paper I have added to the Domesday accounts the numbers of the cattle, not being in team, given in the *Inquisitio Eliensis*. These are usually stated for the lands of the Abbot of Ely only, but occasionally for lands held by others, and “invaded” by them to the hurt of the abbey. As to these it is only needful to say that *animalia otiosa*, (*a. o.*) denotes unworked or unbroken oxen, or breeding cows; *runcini* are saddle-horses, *equæ silvaticæ*, brood-mares. The references to paging are according to the arrangement of the photozincographed copy of the Domesday of Cambridgeshire, published at the Ordnance Survey Office, Southampton, in 1862, under the direction of Colonel Sir H. James, R.E., F.R.S., &c.

