

FIG. 1.

# STUDIES IN THE HISTORICAL GEOGRAPHY OF MEDIEVAL SUSSEX.

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## (1) GEOGRAPHICAL FACTORS UNDERLYING THE DISTRIBUTION OF WEALTH IN SUSSEX IN 1327.

SOME years ago, the Rev. W. Hudson made an analysis of the Sussex subsidy of 1334, which he spoke of as the last of the subsidies for which an individual assessment was made.<sup>1</sup> He summarised his conclusions by saying: "It is plain that in 1334 the wealth of the county was derived from its maritime agricultural districts, to which we might no doubt add its seaports, if the taxation of the principal ports had been here included." The 1327 subsidy<sup>2</sup> seems to be an even more comprehensive one than the one he chose, and I have thought it may be of some value to examine it more fully so as to test the value of his conclusions and to supplement them as far as possible. To this end, I have drawn up Figure 1, which shows the actual amount of tax paid by each settlement, and in Figure 2 I have worked out the average amount paid per taxpayer in each settlement. This second map therefore gives a more accurate clue as to the prosperity of individuals, although it must be admitted that a high average for a small settlement may be due to one wealthy person.

<sup>1</sup> *S.A.C.*, Vol. L.

<sup>2</sup> Printed in Vol. X. of Sussex Record Society, 1910.



In the returns, two and occasionally three, settlements are linked together, and a joint total given. Such settlements have been omitted from Figure 1, but in Figure 2 the average for the group is shown, the symbol being placed at the first mentioned settlement in each group. As the settlements thus grouped were usually very close together, this method will not affect the general distribution.

The 1327 subsidy was a tax comprising one-twentieth of the value of goods, persons with goods worth less than ten shillings being exempt. The men of the Cinque Ports were also exempt.

The amounts plotted in Figure 1 do not reveal any very marked features, except perhaps the concentration in the ports and the Ouse valley, although there are one or two rather important settlements in the Weald. The settlements in the latter region are not so thickly clustered as are those situated along the spring line of the chalk. Pagham has the smallest total, 6s. 9d., and Chichester the largest, £10 10s. 2d.

Now if we turn to Figure 2 we see immediately that the most prosperous settlements were those associated with the chalk zone, and also the ports. It is impossible for any one person to give a reasoned account of the state of affairs in all the settlements shown on the map, but I think that one is justified, on general grounds, in drawing attention to broad features, and leaving individual settlements to be studied by folk with detailed local knowledge. But before offering an interpretation of Figure 2 I should like to refer for a moment to Figure 3, for in that map we have important clues as to the origin of the majority of the wealth shown in the two previous maps.

It is naturally risky to draw very definite conclusions from the state of affairs in any one particular year as to the agricultural economy of Sussex during the period with which we are dealing, both in view of climatic fluctuations from year to year and also, in the case of settlements near the coast, on account of

invasion either by the sea or by the French. The Nonae Returns of 1341<sup>3</sup> do, in fact, give one or other of these two types of invasion as responsible for the non-cultivation of land in certain settlements. Nevertheless, the main facts are sufficiently plain, and are not affected, I feel, by local factors of this kind.

I should add that the Nonae Returns of 1341 state one-ninth of the value of the corn, wool and lambs in each settlement in that year. To arrive at the relative proportions of corn growing to sheep raising, I have taken the amount paid for corn on the one hand, and the combined amounts paid for wool and lambs on the other, and expressed the two totals in terms of degrees. This gives at a glance the part played by each industry, but it gives no idea of the actual amount paid in each settlement.

Unfortunately the Nonae Returns of 1341 do not deal with exactly the same settlements as does the 1327 subsidy, but the difference is not sufficiently great to affect our main conclusions.

One rather surprising fact that emerges from Figure 3 is the overwhelming predominance of corn growing even among settlements in the chalk zone, which is usually regarded as primarily a sheep-raising region. Corn growing, however, must be divided into two types, viz. wheat in the chalk zone, and oats in the Weald, a distinction for which there is ample evidence. Figure 4, which shows the distribution of settlements which supplied wheat and oats for an expedition overseas in 1346,<sup>4</sup> gives perhaps the most striking example of this difference between the two regions.

The apparent anomaly of large scale wheat production in the chalk zone is explained partly by the existence of clay-with-flints which overlies the chalk in certain districts which are therefore cultivable, and partly by the fact that the majority of the parishes which contain stretches of downland also include a

<sup>3</sup> *Nonarum Inquisitiones*, Record Commission, 1807.

<sup>4</sup> Exchequer, K.R. Accounts, Bundle 588, No. 22.

strip of the Lower Chalk formation, which has a clay content, and is cultivable, together with a narrow belt of Upper Greensand which is highly fertile.

On the whole, the centrally placed settlements in the chalk have a larger proportion of wool than have the peripheral settlements.

In the extreme west of the county, and just north of the chalk zone is a group of settlements including Rogate, Chithurst, Iping, Trotton and Terwick, wherein the proportion of sheep is relatively high. This is due not so much to the high value of the wool produced as to the low value of the corn, as shown in Table I. These settlements are all situated on a wide extension of the relatively infertile Lower Greensand formation between the chalk and the Wealden clay.

A few details of the actual values of corn and wool in the Nonae Returns will help to emphasise the conclusion that although wool growing was an important factor it took second place to corn growing as far as the actual producers were concerned, the wealth derived from the wool accruing rather to the wool merchants than to the growers, as we shall see later.

Now let us turn to Table I. where we may examine these inferences a little more closely, and then see to what extent the two taxation accounts appear to show similar responses to the same environmental influences.

I have divided the settlements associated with the chalk zone into three sections, A, B and C. Section A includes villages situated on the Downs, whereas sections B and C consist of villages which, being grouped along or near to the spring line of the chalk, have a peripheral distribution. The main points relating to these three sections may be summarised as follows:—

*(See Table I, p. 162)*

Section A—Proportion of wool and lambs to corn relatively high (average 13·5 per cent.), and average amount paid by each taxpayer in 1327 (4s. approximately), also higher than in sections B and C.

TABLE I.

Geological formation.	Settlement.	Nonae returns, 1341.				Lay Subsidy, 1327.			
		Corn. (1)	Wool and lamb. (2)	Percentage of total.		No. of taxpayers. (5)	Average amt. paid by each taxpayer. (6)	Persons paying less than 7d. (7)	
				Corn. (3)	Wool and lamb. (4)				
		£ s. d.	£ s. d.	%	%	s. d.			
Chalk*	A	Stoughton ..	9 13 4	1 19 8	83	17	13	2 10	1
		Findon ..	12 0 0	2 0 0	86	14	26	2 8	2
		Portslade ..	11 6 8	1 0 0	92	8	10	5 9	—
	B	West Dean ..	8 9 6	1 10 6	85	15	17	4 7	2
		Treyford ..	2 7 0	3 6	93	7	10	2 10	—
		Beppton ..	2 13 4	6 8	89	11	15	1 10	—
	C	Cocking ..	7 0 0	6 8	95	5	14	2 9	—
		Bignor ..	4 2 0	18 0	82	18	6	3 4	—
		Nyetimber ..	7 0 0	13 4	91	9	12	2 4	—
	Lower Greensand	Iford ..	6 0 0	1 0 0	86	14	5	1 9	2
		Glynde ..	11 10 0	10 0	96	4	20	2 8	—
		Berwick ..	5 1 0	13 4	88	12	27	3 9	—
Iping ..		15 0	11 4	57	43	12	1 11	—	
Chithurst ..		16 0	4 0	80	20	9	1 2	4	
Weald Clay	Trotton ..	2 13 8	13 6	80	20	17	1 1	6	
	Billinghurst ..	5 3 2	3 6	97	3	41	11	17	
	Slinfold ..	6 0 0	13 4	90	10	8	2 3	—	
Hastings Beds	East Grinstead ..	29 9 8	4 4	99	1	21	1 9	3	
	Balcombe ..	4 13 4	Nil.	100	—	17	1 11	1	
	Maresfield ..	7 0 0	6 8	95	5	41	1 11	6	
London Clay and Reading Beds	Brede ..	6 19 5½	2 3½	98	2	75	1 3	18	
	Sidlesham ..	15 13 4	1 0 0	94	6	87	2 4	12	
	Oving ..	13 18 0	1 2 0	93	7	18	2 7	3	
	Aldingbourne ..	8 13 4	13 4	93	7	42	1 10	12	

\* Although all these parishes contain considerable areas of chalk, the actual village is in some cases on the Upper Greensand.

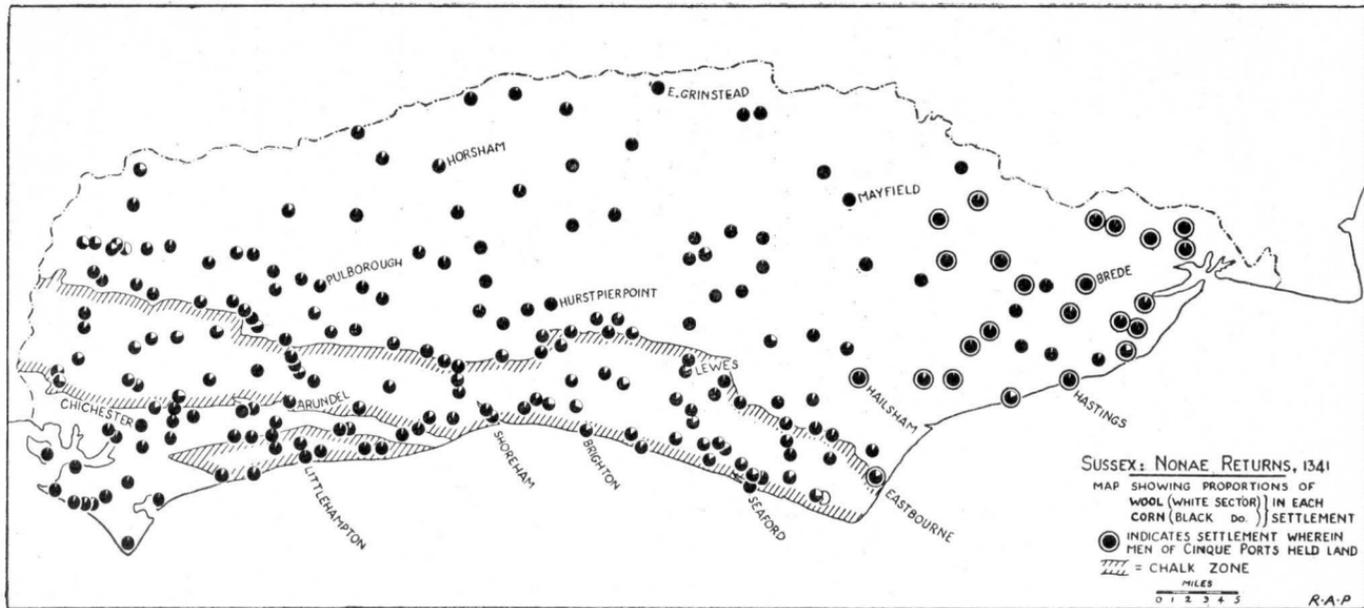


FIG. 3.

Section B—Low amounts for wool and lambs, owing possibly to wooded nature of downland in these parishes (average 8 per cent.). Average payment by each taxpayer in 1327, 2s. 6d. (approximately).

Section C—This represents largest group of settlements in Sussex, and its intermediate position, from the point of view of wealth, between sections A and B is reflected in its average for column 4 (11·5 per cent.) and for column 6 (2s. 9d. approximately).

Very few taxpayers in the chalk zone paid less than 7d., and the total number of taxpayers in each settlement was not high. For a few settlements the Nonae Returns give the actual number of fleeces and lambs, and the basis of computation for the tax in those cases seems to have been as follows:

Value of fleece	1s. 6d.	Tax paid	2d. <sup>5</sup>
„ lamb	2s. 3d.	„	3d.

One might think that from this information, the actual numbers of sheep and lambs in the other settlements could be calculated, but I strongly suspect that in a number of cases the values given for corn, wool and lambs were worked out on a roughly proportional basis rather than from individual assessments. That is why I have not attempted to map the actual values for the Nonae Returns as I have done for the 1327 subsidy in Figure 1.

The settlements on the Lower Greensand were poor in corn, and the average for column 6 (1s. 5d.) is much lower than in the chalk zone. Column 7 shows a significant rise in the number of poor taxpayers.

There were so few settlements situated entirely on the Weald Clay that it is not easy to find a sufficient number for analysis. We are here in a thickly forested region which when cleared, has a good soil for wheat growing.

Settlements on the Hastings Beds differed a good

<sup>5</sup> These valuations are incredible. Thorold Rogers in his *Hist. of Agriculture and Prices* (Vol. I., 390), gives the highest price for a fleece in 1341 as 8d., and (*ibid.*, 353) the average for a lamb, 6½d. Lambs do not touch a shilling for twenty years on either side of this date.—EDITOR.

deal, as we should expect, from the varied nature of the outcropping strata which make up this geological series. Some of the settlements in this section were apparently larger and the figures in columns 5 and 7 are high. The average for column 6 (1s. 8½d.) suggests greater prosperity than on the Lower Greensand.

In the Weald we have a further factor, the iron industry, concerning which at this period we know too little to be certain of its affects on the distribution of wealth. Apart from a small group of prosperous settlements to the east of Hailsham, the region was on the whole, as Figure 2 suggests, one of poverty.

The last section in Table I. reveals high production both in corn and wool in the lowland between the chalk zone and the sea, but columns 5 and 7 suggest reasons for the relatively low average in column 6 (2s. 3d.). A number of large circles are shown in the area in Figure 1, but there was also a correspondingly large number of taxpayers, so the average wealth was comparatively small.

It remains for us now to add a word regarding the sea ports, although Table II. is really self-explanatory. The high average amount paid by all the taxpayers in each port bears out the second point in Rev. W. Hudson's generalisation, and the prosperous nature of the wool merchants is evidenced by the figures in the last column.<sup>6</sup>

TABLE II.

Port.	Taxpayers.	Average amount paid.	Wool merchants.	Average amount paid.
		s. d.		s. d.
Chichester ..	42	5 0	8	7 6
Shoreham ..	40	4 7	7	7 6
Seaford .. ..	21	3 8	3	4 8
Arundel .. ..	49	2 0	3	4 4

<sup>6</sup> The customs accounts dealing with the exportation of wool from Sussex between September, 1324, and May, 1326, have fortunately been preserved (Customs Accounts 135/5, 135/6, 135/7 and 135/8), and by comparing them carefully with the 1327 Subsidy I have been able to identify a number of wool merchants in the latter. It is these to whom reference is made, both here and in Figure 4.

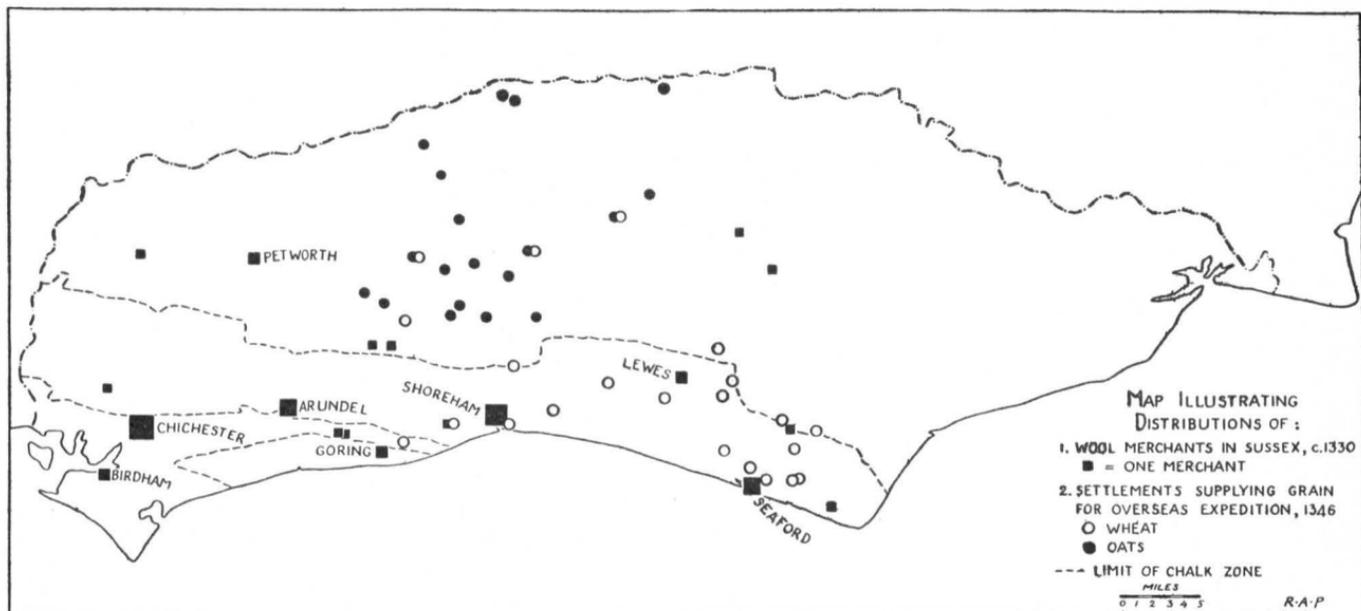


FIG. 4.

We thus reach the conclusion that Rev. Hudson's summary is substantially correct, but that an analysis along geographical lines reveals certain local factors which help us to understand better the influence of environmental conditions upon the prosperity of the county prior to the economic upheaval occasioned by the Black Death.

(2) THE TRANSPORTATION OF PRODUCE IN SUSSEX DURING THE FOURTEENTH CENTURY, AS REVEALED BY THE SHERIFFS' ACCOUNTS.

Most people think of medieval transport in Sussex in terms of pack horses floundering in muddy lanes, and indeed it is that aspect which has always been emphasised, usually in connection with the iron industry. We are coming, however, to appreciate the importance of vehicular traffic, and even though the roads in the Weald may have been impassable, or at all events very difficult to negotiate, during certain times of the year, they did not by any means prevent the employment of carts and waggons for the transport of bulky and heavy goods.

In the chalk zone, conditions were considerably better, and so the problem there needs little comment.

The fourteenth century was a century of warfare, and numerous expeditions were made into Scotland or overseas during that period. The provisioning of such expeditions was entrusted in large measure to the sheriffs of the counties, and the accounts which they kept are valuable for the light which they throw upon the internal economy of the country.

Sussex, with its characteristic distribution of Downland and Weald makes an interesting region for study from the point of view of medieval communications. The Sheriff of the county was continually faced with the problem of getting his produce collected in one spot, for there was, and still is, no natural inland centre within reasonable distance of all parts of the county. The difficulty was overcome, as Figure 5

shows, by having goods from various settlements conveyed to the nearest port, the final collecting being done by boat.

The map, which tries to summarise some of these movements, brings out a few points of special interest, and our attention is drawn first of all to the outstanding importance of Shoreham and the Adur gap, and secondly to the widespread use of wheeled traffic, sometimes for considerable distances. Shoreham no doubt suffered commercially when Normandy ceased to be a province of England, but there can be no doubt that its medial position in the chalk zone enabled it to maintain an important trade throughout the Middle Ages.

The geographical situation of Chichester is interesting, for although not in direct communication with the open sea, it lies almost equidistant from a number of small ports which are. Belloc<sup>7</sup> has made interesting analyses of the sites of Winchester and Canterbury, and his remarks on the latter city can, with a substitution of names, be applied to Chichester in rather a striking way. Each was a Roman settlement, each became an ecclesiastical centre, and each served as a focus behind a number of small ports. Belloc ascribes the early importance of Canterbury to the fact that it could be approached with equal ease from Sandwich, Dover or Hythe and that vessels could therefore put in at any one of these ports according to the state of wind or tide. Similarly we may regard Bosham, Fishbourne, Appledram, Birdham, West Wittering, Sidlesham and Pagham as possible landing places en route for Chichester, the rounding of Selsea Bill in stormy weather being analogous to the passage around the North Foreland. Both Thanet and Selsey were formerly islands.

Now let us examine some of the movements in detail, taking first the collecting of produce required by Edward II. at Newcastle in 1319. The Archbishop of Canterbury "lent" the king the following:

<sup>7</sup> Hilaire Belloc : *The Old Road*.

TABLE I.<sup>8</sup>

Quantity.	Commodity.	Manor.	Where sent.	No. of carts.	Cost of carriage.
30 quarters	Wheat	Lavant	Chichester	} 6 for 5 days	£1 5 0
80 "	"	Tangmere	"		
70 "	"	Bersted	"		
90 "	"	Shripney	"		
30 "	"	Aldwick	"		
300 qtrs.			.		

At Chichester the wheat was milled and the flour put into 43 tuns and 2 pipes. These were conveyed at a cost of 16s. 1d. to Sidlesham, where 18 tuns and 2 pipes were loaded into 2 boats which had been brought from Shoreham. The carriage to Shoreham cost 19s. The remaining 25 tuns were taken to Shoreham in a vessel belonging to William Bernard of that port at a cost of 25s., but only 5s. was actually paid because 7 tuns, containing 49 quarters of flour, were lost during the voyage.

These three vessels transferred their flour into the "Seintemariemessenger" of Shoreham, a large vessel with 45 men aboard,<sup>9</sup> William Vivian of Shoreham being the master.

The following goods from the Archbishop's manors in the Rape of Chichester were collected at West Wittering, whence they were taken in a ship belonging to William Bateman of Dunwich and loaded into William Vivian's vessel at Shoreham (Table II.). The carriage from West Wittering cost 20s.

TABLE II.

Quantity.	Commodity.	Manor.	Where sent.	Distance.	Cost of carriage.
80 quarters	Wheat	Nyetimber	West Wittering	1 league	s. d.
15 "	Beans				3 11½
10 "	Wheat	Sindon	"	5 leagues	10
5 "	Peas	Tangmere	"	"	7½
110 quarters.					5 5

<sup>8</sup> Abstracted from Exchequer K.R. Accounts, Bundle 588, No. 7.

<sup>9</sup> ". . . pro se et sustentacione quadraginta et quinque homi' exist' in ead' navi ducent p'dca' xxxvi dol' . . ."

From the Archbishop's manors in the Rapes of Bramber and Pevensey the produce listed in Table III. was transported in carts to Shoreham and finally loaded into the "Seintemariemessenger."

TABLE III.

Quantity.	Commodity.	Manor.	Where sent.	Distance.	Cost of carriage.
80 quarters	wheat	Tarring	Shoreham	5 leagues	£ s. d. 7 6
100 "	"	Mayfield	Lewes	14 "	4 0 0
200 "	oats	Lewes to	Shoreham	10 "	1 15 0
100 "	wheat				
100 "	oats	Stoneham	"	12 "	16 0
80 "	wheat				
460 quarters					£6 18 6

It will be noticed from Table III. that the average cost of transporting the 100 quarters of wheat and 200 quarters of oats from Mayfield to Lewes (Weald section of route) was 5s. 8½d. per league, whereas the journey through the Downland region from Lewes to Shoreham only averaged 3s. 6d. per league.

The carriage of these 36 tuns, 2 pipes of flour, containing 256 quarters, 4 bushels of flour, together with 350 quarters of wheat, 20 quarters of beans and peas, and 200 quarters of oats, from Shoreham to Newcastle cost £27.

Now let us consider the provisioning of an expedition to France in 1346. The contribution of Sussex consisted mainly of forest products and may be summarised as follows:<sup>10</sup>

TABLE IV.

Nature of consignment.	Where prepared.	Destination.	Distance.	Waggons employed.	Cost of carriage.
41 pontoons	Cuckfield	Shoreham	17 leagues	41	£4 2 0
500 hurdles	Pulborough	"	12 "	62	3 2 0
500 "	Cuckfield	"	17 "	62	4 13 0
264 "	Thakeham	"	—	33	1 7 6

<sup>10</sup> Exchequer K.R. Accounts, Bundle 588, No. 17.

These hurdles were required for the shipment of horses, and were conveyed to Portsmouth in 6 vessels as shown in Figure 5.

Shortly after this, fresh demands were made upon the resources of the Weald, as shown in Table V.<sup>11</sup>

TABLE V.

Nature of consignment.	Where prepared.	Destination.	Distance.	Waggons employed.	Cost of carriage.
20 pontoons	Penhurst	Winchelsea	10 leagues	20	£1 10 0
782 hurdles	Udimere	"	4 "	78	1 19 0
50 " (large)	"	"	4 "	6	3 0
150 sheaves of arrows.	Horsham	London	26 "	(5 horses)	5 0
20 scaling ladders.	Thakeham	Shoreham	10 "	20	1 10 0
100 hurdles	"	"	10 "	10	10 0

With the exception of the sheaves of arrows, which do not appear on the map, the consignments in Tables IV. and V. are given first of all in the accounts in terms of trees from which the hurdles, etc., were made. Consequently they all appear under the symbol for timber on the map. The accounts merely state that the goods were sent round to Portsmouth, no details being given.

A point of some interest is that the 20 scaling ladders each 25 ft. long, for which 33 trees were felled, together with the hurdles made at Thakeham, were specifically intended for the assault on Calais: "pro villa de Caley's insultand' et expugnand'."

The consignments of wheat (103 quarters) and oats (109 quarters) which are plotted on Figure 4 are contained in this account, but no information is given as to their destination or mode of transport.

In 1349 we find quantities of cider bought in various parts of the county and conveyed to Shoreham "pro municione ville de Caley's" (Table VI.). After being stored from 1st February to 1st April, it was taken across to Calais at a cost of £5 15s. 11d.<sup>12</sup>

<sup>11</sup> *Ibid.*, No. 22.

<sup>12</sup> *Ibid.*, No. 24.

TABLE VI.

Quantity.	Where bought.	Where taken.	Distance.	Carts.	Total cost of carriage.	Average cost per car per league.
					s. d.	d.
20 tuns	La Feld	Shoreham	5 leagues	20	16 8	2
6 "	Erringham	"	2 "	6	3 0	3
5 "	Steyning	"	5 "	5	4 2	2
4 "	Durrington	"	5 "	4	3 4	2
3 "	Sutton	"	10 "	3	5 0	2
3 "	Lancing	"	3 "	3	1 6	2
2 "	Wiston	"	6 "	2	1 8	1½
2 "	Preston	"	8 "	2	2 0	1½
1 "	Ford	"	13 "	1	2 0	1½
1 "	Worthing	"	5 "	1	10	2
1 "	Goring	"	6 "	1	10	1½
1 "	Hardham	"	10 "	1	1 8	2
1 pipe	Clayton	"	5 "	1	6	1½

From the above figures we can see that there was not by any means a uniform scale of charges for transport, and it is a little surprising to find that for the shortest and in many ways the simplest, journey, viz. from Erringham to Shoreham, the highest rate was charged.

The provisioning of Dover Castle kept the sheriffs of the south-eastern counties busy throughout the Middle Ages. In Figure 5 I have diagrammatised examples of the transport of timber and pork and I propose to discuss the latter first, for it illustrates very clearly the amount of organisation necessary for the movement of produce on a large scale.

Table VII. gives a summary of the movements of meat collected in 1326.<sup>13</sup>

TABLE VII.

Consignment.	From—	To—	Distance.	Carts.	Horses.	Ships.	Cost of carriage.
							s. d.
20 hogs	Manhood Hundred	Chichester	4 leagues	1	3	—	6
38 hogs	} Chichester	Arundel	10 "	3	9	—	3 6
1 flitch							
4 oxen							

<sup>13</sup> Exchequer K.R. Accounts, Bundle 588, No. 11.

TABLE VII—continued.

Consignment.	From—	To—	Distance.	Carts.	Horses.	Ships.	Cost of carriage.
68 hogs 8 oxen 2 flitches	Arundel	Shoreham	20 leagues	—	—	1	3 0
9 hogs 1 flitch		Little-hampton	8 "	—	4	—	8
21 hogs 7 oxen	Lewes	Steyning	4 "	—	14	—	1 2
		Lancing Sompting					
35 hogs 4 oxen		"	10 "	—	22	—	5 6
3 hogs 1 flitch	Boreham	Seaford	12 "	—	1	—	4
7 hogs 1 flitch	Robertsb'ge Ticehurst	"	18 "	—	3	—	1 3
3 hogs	Burwash	"	15 "	—	1	—	5
21 hogs	Hailsham	"	8 "	—	7	—	1 2
	Hellingly Eckington						
11 hogs	Berwick	"	4 "	—	4	—	4

Thus we see that carts, pack-horses, and water transport were all employed in the carrying out of this particular set of orders.

It is significant that pack-horses were used in lieu of carts in the rather difficult country north-east of Seaford.

The boat from Arundel appears to have called at Shoreham and Seaford to pick up the consignments which had been collected there, and then took the lot to Dover at a cost of £1.

Finally let us examine the shipments of timber to Dover :

TABLE VIII.

Consignment.	From—	To—	Distance.	Waggons.	Cost of carriage.
785 hurdles	Udimere	la Damme	2 leagues	98	£1 12 10
215 "	Brede and Beckley	"	3 "	26½	13 3
105 "	La Damme	Dover	—	by boat	£1 5 0
175 oaks	Crowhurst	Bulverhythe	4 "	248	3 12 4

Apparently some difficulty was experienced in traversing the short distance between Crowhurst and Bulverhythe, for the account states that hurdles and

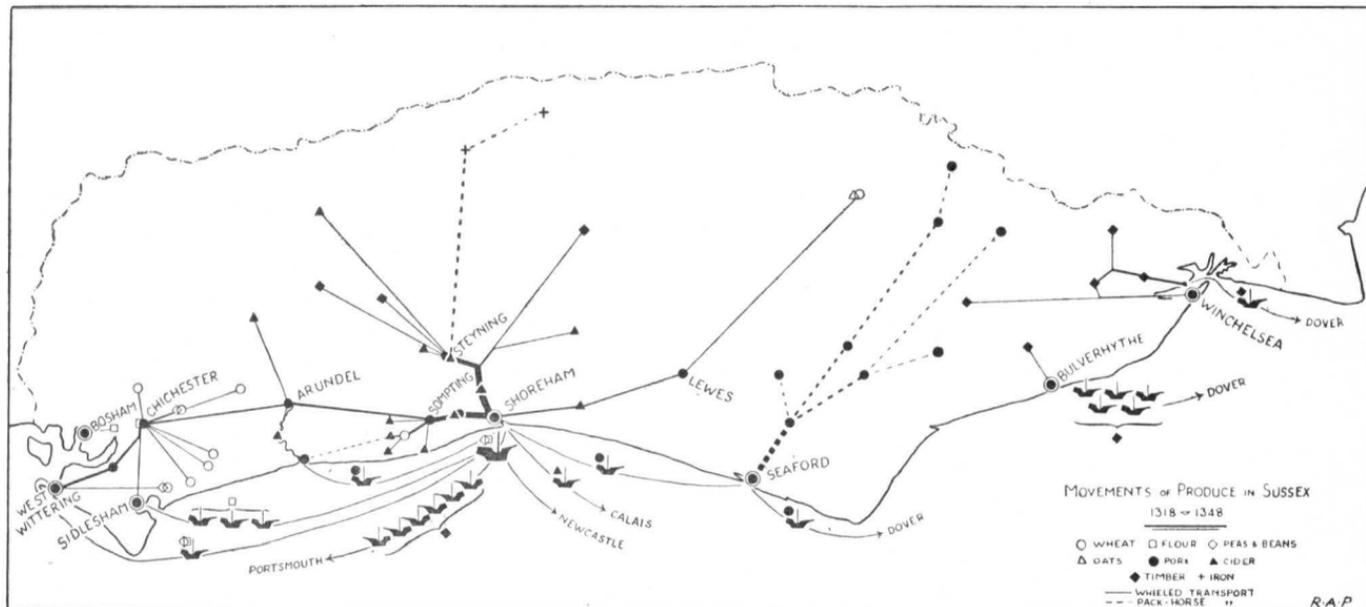


FIG. 5.

fagots of heath had to be made to bridge over the ditches between the two places at a cost of 1s. 6d.

The conveyance of the timber from Bulverhythe to Dover is worth examining in detail, for I have traced the boats employed on the work through the contemporary customs accounts. Let us first of all tabulate the vessels employed:

TABLE IX.

Master.	Cargo.	Cost of carriage.
Thomas Cook of Dover .. ..	66 pieces	£4 13 4
John Salkyn .. ..	69 "	3 13 4
William Hurtyrn .. ..	20 " (large) }	8 6 8
" .. ..	87 "	
William of Romney .. ..	30 "	4 4 0

One's first impression is that the shipmasters were well paid for their work, but the chief point of note is that here we have a clear example of ships belonging to a Cinque Port, in this case Dover, requisitioned for a special purpose. There seems little doubt that demands made by the King upon the shipping of the Cinque Ports must have interfered at times very considerably with the normal trade of those ports. All four of the shipmasters in Table IX. were, in fact, busily engaged in shipping wool during the reign of Edward II. John Salkyn's boat was used to carry a cardinal across to France in 1294.<sup>14</sup>

We may sum up by saying that coast-wise traffic played a prominent, and in fact essential, part in the local trade of Sussex, and that vehicular traffic was used on an extensive scale to link up the inland settlements with the ports.

### (3) THE DISTRIBUTION OF CAEN STONE IN SUSSEX.

Attention has frequently been drawn to the extensive use of foreign building stone in Sussex during the medieval period of church construction, but its distribution within the county does not appear to

<sup>14</sup> Pipe Roll 23, Edward I.

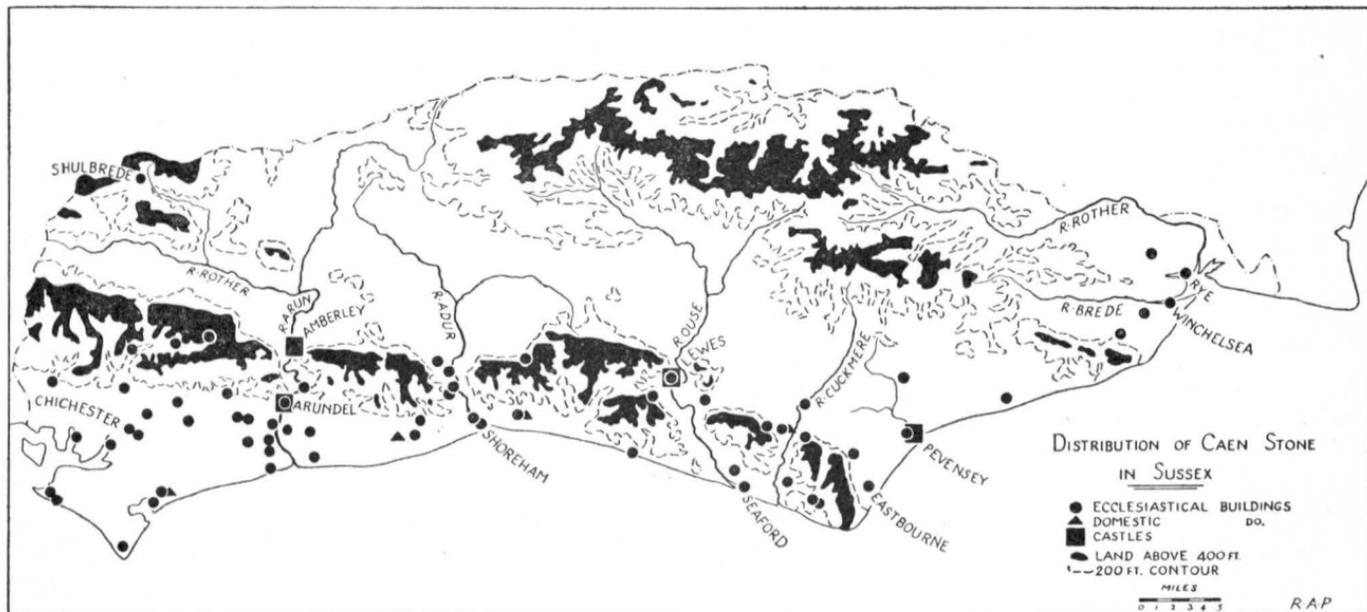


FIG. 6.

have been studied in detail. In the Victoria County History for Sussex and in several articles in the Society's COLLECTIONS, Mr. P. M. Johnston has pointed out a number of churches in which Caen stone, a fine grained oolitic limestone from Normandy, was employed. I have gathered together these examples, and also references made by other writers to the use of this stone, and their distribution is shown in Figure 6.

The writer would be very grateful if members of the Society could inform him of the presence of Caen stone in buildings other than those marked on the map, so that a more comprehensive map may be drawn up later, for it would be interesting to know exactly how far this particular aspect of Norman influence penetrated into the county.

Since the use of Caen stone was not confined to churches, I have also mapped as far as possible the castles and manor houses in which it is to be seen to-day, but one must emphasise that the list is by no means exhaustive, and the map must only be regarded as tentative. Nevertheless, it does show some rather marked features which throw light on one or two problems.

When we consider the natural disadvantages which stone, as an article of commerce, must have possessed in the Middle Ages and the fact that it had to be brought across the Channel in boats, it is not surprising to find that it became localised along the coast and up the river valleys. The marked concentration along the lower courses of the Arun, Adur, Ouse and Cuckmere illustrates this point very clearly.

On the other hand, with one exception, Caen stone appears not to have been carried beyond the chalk zone, although the middle courses at least of the rivers must have been navigable at this period. The explanation may be that we have insufficient information concerning the churches of the Weald, but it is perhaps even more likely that this particular stone is absent because of the relative poverty of the region,

which compelled a reliance upon cheap, inferior local material for all purposes.

The one exception, Shulbrede Priory, is the more remarkable because Caen stone was lavishly used in its construction. We must note, however, that despite its remoteness, the priory was situated close to a tributary of the Rother, along which the stone was no doubt brought, and so we may set aside any suspicion of transport difficulties for the Weald in general, provided that the destination of the stone lay within a short distance of a navigable stream. This strengthens our former conclusion that the poverty of the Weald was the main factor involved.

Caen stone was being imported into Sussex before the Norman Conquest, since it is found in Saxon churches at Bosham, Ford and Sompting, but it was during the twelfth and thirteenth centuries that the largest quantities were brought over, if we are to accept purely archaeological evidence. Detailed historical evidence for the trade is not available until the fourteenth century, when the customs returns give us the first systematic accounts of cross-channel traffic, but when we analyse the available returns we find that the importation was sporadic and on a small scale. The declared value was usually 1s. per tun, and a cargo consisted in most cases of about 30 tuns. The use of barrels as containers suggests, as we should expect, that the stone was hewn into comparatively small blocks before shipment.

#### (4) THE EARLIEST CARTOGRAPHICAL REPRESENTATION OF AN IMPORTANT SUSSEX HIGHWAY.

That the South Downs have been a relatively open region facilitating intercourse between east and west in Sussex from early times there can be no doubt. Concerning the Roman period, we have evidence, some of which may not, however, be very strong, which



FIG. 7. THE BODLEIAN MAP OF ENGLAND. (S.E. corner).

makes it appear that there was at least one road following this line.

The discovery of what is claimed to have been a Roman bridge at Bramber many years ago led the Rev. Edward Turner to put forward a strong plea for a Roman "via" running along the foot of the Downs between Bignor, where it left the Stane Street, and Pevensey, and extending beyond to the Kentish ports.<sup>15</sup> In support of this he quotes Douglas as saying: "Another branch (of the Stane Street) to the sea coasts of Sussex and Kent took its course under the Downs, through Steyning to Pevensey, the Anderida Portus of Richard, which completes the numerals XLV. of the itinerary; and hence proceeding along the coast to ad Lemanum on the Rother, to Lemaniam, Limne, where the mural station is now extant, continuing to Dubris, Dover; Rhutupis Colonia, Richborough; Regulbio, Reculver. . . ." This route would avoid the chalk spurs and the wide river estuaries on the one hand, and the forested Weald on the other, and would thus be the most feasible one to follow. It could be compared with the old road along the North Downs and the Icknield Way, as W. D. Peckham has pointed out.<sup>16</sup>

The Rev. Turner gives other archæological evidence in support of this alignment, and recently Mr. Salzman has mentioned the possibility of a Romanised road "running from the neighbourhood of Lewes by Wick Street, on the northern edge of Firle Park, eastwards; turning north-east, to avoid the Cuckmere, by Wick Street on the Upper Dicker road; east again through Horsebridge to Gardner Street, Boreham Street, Standard Hill (with possibly a branch leading off by Lower Street and Broadstreet Green to Pevensey), and so, in the neighbourhood of Battle joining the road by which Harold marched his forces to the fatal field of Hastings."<sup>17</sup> Then again we have evidence that the road past Michelham "was then (late fourteenth century) the principal thoroughfare between

<sup>15</sup> *S.A.C.*, Vol. II.

<sup>16</sup> *S.N.Q.*, Vol. I., p. 45.

<sup>17</sup> *Ibid.*, p. 34.

Lewes and the towns of Hailsham, Pevensey, Battel (*sic*) and Hastings.”<sup>18</sup>

With regard to the westerly section of this route, uncertainty as to the crossing point of the Arun prevents our being definite as to the alignment here.

In drawing up Figure 5 upon information abstracted from the Sheriffs' Accounts, I was faced with the difficulty as to which route was taken by the various waggons carrying produce to Shoreham, especially from the west. Steyning seemed to me to be the most likely focus for produce from the Weald, and Bramber bridge the obvious crossing of the Adur for such traffic. On the other hand, produce from settlements along the coastal plain between the Arun and the Adur, must have crossed the Adur in the vicinity of Shoreham, for the actual distances given in the accounts do not justify one in assuming that this traffic was deflected north to Bramber. The *leuca*<sup>19</sup> is a notoriously unreliable unit of measurement, and we may assume that the number of “leagues” was not always accurately stated in the accounts, but nevertheless it seems to me that there was a well-established route along the coast, the Adur being negotiated at Shoreham by means of the ferry which we know to have been in operation during the Middle Ages.<sup>20</sup>

Although we are not justified in assuming that because a road was in considerable use during the Middle Ages it was therefore of Roman origin, it is interesting to note the discovery of a Roman villa at Angmering and the strong suspicion of a Roman road leading past it to the mouth of the Adur.<sup>21</sup>

Let us now turn to the cartographical evidence which, one hopes, may not create more problems than it tries to solve.

The rather remarkable map of Britain in the Bodleian

<sup>18</sup> *S.A.C.*, Vol. VI., p. 138.

<sup>19</sup> This is usually taken to mean a distance of about  $1\frac{1}{2}$  miles, although it varied, being sometimes 2 miles or even more.

<sup>20</sup> *S.A.C.*, Vol. XI., p. 113, mentions profits of Adur ferry at Shoreham as part of endowment of Pynham Priory.

<sup>21</sup> *S.N.Q.*, Vol. I., p. 164.

known as the Gough Map cannot be dated precisely, nor is its author known. Palæographical examination and the actual spelling of place names suggest that it was drawn up during the fourteenth century, and possibly as early as circa 1340, although a number of the place names have been inked over at a later date. The south-eastern section of that map is reproduced in Figure 7, and I should like to draw attention to the line running along the south coast from Chichester to Canterbury. The Gough Map is covered by a network of what appear to be roads, many of which radiate from London,<sup>8</sup> and Roman numerals apparently referring to mileages between settlements are scattered along these roads. The map is orientated with the east to the top, which is a common feature of medieval maps, Jerusalem being situated towards the east.

The line referred to begins at Hampton (Southampton) in the west and passes through Haventr' (Havant), Cicestr', Arundell, Brymbr', Lewis, Wynchelsee and Rye to Cantuar'. The two illegible settlements between Lewes and Winchelsea I believe to be Hailsham and Battle. All these places will be recognised immediately as important points along the main route, which is thought to have been originally Roman. Shoreham is definitely left to the south of the line, and so is Pevensey, to which, as Mr. Salzman suggests, a branch road may have led. Appoldr' (Appledore) also lies just to the south of the line.

The distances along the road present an interesting group of problems for the solution of which I can merely offer suggestions, and these are only to be regarded as tentative.

In Table I. I have shown the distances in leagues as given on the map, together with the crowflight distances in miles, and in the third column is added the mileage if we assume that Roman roads were utilised as far as possible between two towns. Now if Arundel were 10 leagues from Chichester it is obvious

<sup>22</sup> The Dover-London section of Watling Street is, strangely enough, omitted.

TABLE I.

	Leagues.	Crowflight distance in miles.	Conjectured route in miles.
Chichester—Arundel .. ..	10	9½	<sup>23</sup> 13½; 16 <sup>24</sup>
Arundel—Bramber .. ..	10	10½	<sup>25</sup> 13½; 15 <sup>26</sup>
Bramber—Lewes .. ..	10	14	17
Lewes—Battle .. ..	18	21	24½
Battle—Winchelsea .. ..	7	9½	11½
Winchelsea—Rye .. ..	8	2	2
Rye—Canterbury .. ..	17	13½	17½

that the present main road which is only just over 10 miles long could not be the one indicated on the map, for one is assuming that a league was at least 1½ miles. On the other hand, if the route from Chichester lay along the Stane Street nearly as far as Bignor Hill and then branched off to the right past what is now Whiteways Lodge, the mileage would be about 13½ miles, and if the route descended Bignor Hill and passed through West Burton, Bury and Houghton, it would be 16 miles, which is an even more reasonable equivalent of 10 leagues.<sup>27</sup>

In the case of the stretch from Arundel to Bramber two alternative routes, one via Houghton and along the foot of the Downs, the other across the Downs, via Burpham, give 15 miles and 13½ miles respectively as the distance.

Between Bramber and Lewes the distance was probably a little more than 10 leagues, for the shortest route along the foot of the Downs is about 17 miles.

The next stage presents little difficulty, the road past Michelham Priory, referred to above, giving a distance of 24 miles which compares favourably with 18 leagues.

If one keeps to the high ground between Battle and Winchelsea, the distance is about 11½ miles, which is

<sup>23</sup> Via Whiteways Lodge.

<sup>24</sup> Via Bury and Houghton.

<sup>25</sup> Via Burpham.

<sup>26</sup> Via Houghton.

<sup>27</sup> It will be noticed that 10 leagues is given as the length of the journey when pork was carried from Chichester to Arundel, and Fig. 5 should therefore be modified slightly to indicate a route along Stane Street as outlined. It is interesting to get contemporary evidence of this kind to throw light on the problem.

a little high for seven leagues, but the real difficulty occurs in the next stretch. I believe that the VII leagues of the last section and the VIII of the one between Rye and Winchelsea have been added later, for the V in these two cases is of a later form than the others. Mr. Salzman, who has examined a photographic copy and also the original map, suggests that the settlement which I have identified as Hailsham reads "bor . . ." and may be Boreham Street, that the XVII refers to the stage Lewes to Boreham Street, and that the VII may have been misplaced, belonging really to the stage Boreham Street—Battle, leaving VIII for the stretch between Battle and Rye. He further suggests that the distances may be roughly in miles rather than leagues.

I wish to acknowledge his kindness in offering suggestions both on this point and also on others in the foregoing pages.

The last section, even if one went via Lymyne, and Stane Street, could only have been about 24 miles long, so there appear to be a couple of discrepancies here, which do not, however, affect our main conclusion.

If we are justified at all in arguing back from medieval roads to Roman roads, then I think we have evidence to support the contention that the latter were more numerous in Sussex than even the second edition of the Ordnance Survey Map of Roman Britain would lead us to suppose.