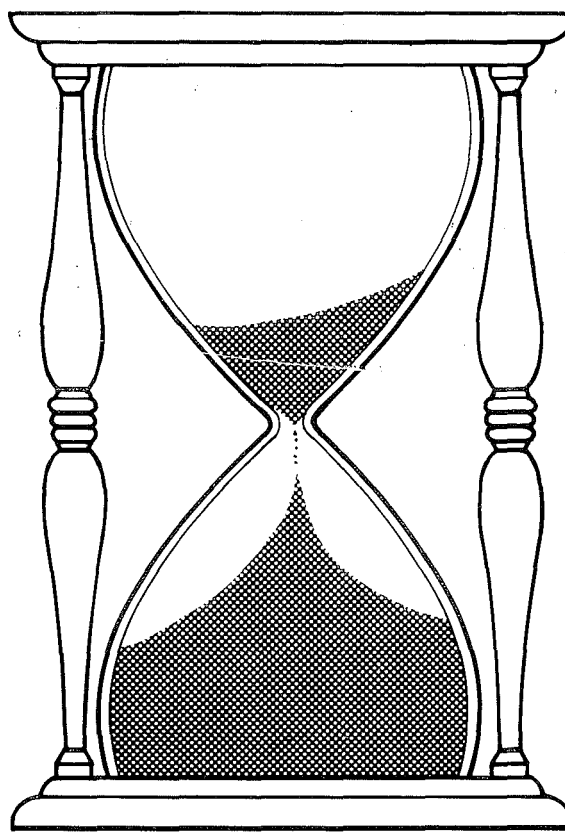
Historical Geography Research Series

Social Protest in a Rural Society

Andrew Charlesworth



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HISTORICAL GEOGRAPHY RESEARCH GROUP - RESEARCH PAPER SERIES

(Co-Editors: Professor Michael P. Conzen and Dr. Robert A. Dodgshon)

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HISTORICAL GEOGRAPHY RESEARCH SERIES

No. 1

SOCIAL PROTEST IN A RURAL SOCIETY : THE SPATIAL DIFFUSION OF THE CAPTAIN SWING DISTURBANCES OF 1830 - 1831

By

Andrew Charlesworth

(Department of Geography, University of Liverpool)

PREFACE

A reader of Eric Hobsbawm and George Rudé's *Captain Swing* may well be left with impressions of a massive, spontaneous outburst of protest by agricultural labourers, of 'an acceptable movement of economically motivated men.' An historical geographer, encouraged to study his local community by Hobsbawm and Rudé's exhortations for more case-studies, may similarly have set out with an image of a revolt that was almost untouched by the Radicals' attacks on Old Corruption. Yet if he was lucky and happened to be studying Battle or Thatcham or Crowmarsh Gifford, he could have come across evidence that would point to another view of the protests. With E.P. Thompson he would come to believe that there was more to the disturbances than economic ends and that men, who were inspired by William Cobbett's brand of Radicalism, had more than a little to do with the mobilisation of their village to take collective action against their masters in the autumn of 1830.

That conclusion is arrived at from viewing the Swing protests from a spatial perspective. Yet the insights one gains from that perspective are only obtained when one realises the necessity of interpreting spatial patterns of phenomena in their social and historical context. A dot map of riots is not simply a patterning of points, whose spatial form can be divorced from either the aspatial model of social protest to which we hold, or the historical events contemporaneous with the disturbances. Moreover, great care must be taken with the language one employs to describe such spatial patterns. We perhaps do not realise what damage can be done to our image of man by the cavalier use of epidemiological terms and false biological analogies.

Even so the study is little more than exploratory and concentrates on the patterns revealed by the maps. Hopefully it helps to put another nail in the coffin of the 'Old Faithful' model in which social protests are seen as spontaneous, galvanic eruptions contagiously spreading across the landscape. At the same time it provides a map of where to 'dig' in the mountains of documentary evidence, ultimately necessary if we are to establish more firmly the connection between the protests and a cadre of grass-roots militants or village politicians - men who were politically aware of events beyond the parish boundary.

Many people have encouraged me during the course of this work and to these and all who have given very generously of their time and assistance I extend my warmest thanks. In particular I would like to thank Professors Eric Hobsbawm and George Rudé, for allowing me to ransack the data they had so meticulously collected and collated and especially Professor Rudé for his continued interest in my work; Peter Gould, for allowing me to tackle such an esoteric piece of work in the

first place; Professor Charles Tilly, whose critique of my first attempt at explaining the spread of the protests was the germination of the alternative model I have proposed and thus prevented my premature publication and subsequent embarrassed recantations; Michael Freeman, for his advice on matters concerning stage coaches; David Siddle and Brian Harley for reading earlier drafts of the monograph; Alan Hodgkiss, Joan Treasure and Sandra Mather for the infinite care, patience and skill they have brought to the cartography of the monography in spite of my pernickety demands; Douglas Birch and Harry Taylor for the photographs; Betty Thomson for deciphering my handwriting and typing all the drafts of the manuscript; my wife Jean, without whom it never would have been finished. The errors that remain are, of course, my own responsibility.

Andrew Charlesworth
Liverpool
July 1978

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An eminent philosopher among my friends, who can dignify even your ugly furniture by lifting it into the serene light of science, has shown me this pregnant fact. Your pierglass or extensive surface of polished steel made to be rubbed by a housemaid, will be minutely and multitudinously scratched in all directions; but place now against a lighted candle as a centre of illumination, and lo! the scratches will seem to arrange themselves in a fine series of concentric circles around that little sun.

George Eliot, *Middlemarch*.

Few social scientists feel comfortable trying on the geographer's spatial shoes... Part of the trouble, of course, is that the map imposes a stricter discipline upon us than we care to admit.

Peter R. Gould.

INTRODUCTION

1830 was a year of revolution in France and Belgium. In England it saw the revival of agitation for parliamentary reform, sustained partly by the examples of Paris and Brussels and undoubtedly encouraged by the success in Ireland the previous year of O'Connell's Catholic Association. 1830 was a year of tax protests and of widespread industrial unrest. And in the autumn and early winter of that turbulent year, whilst the first steps towards the making of the First Reform Bill were being taken, there swept across southern and eastern England a massive series of protests by agricultural labourers.

The labourers' protests took many forms. In some areas there were demands for higher wages and for tithe reductions, although the two were not always associated. Other areas saw the overseers of the poor attacked; in a few places workhouses were the target of the crowd. In central-southern England forced levies of money by the protestors were common, but even more widespread were the destruction of threshing machines. And as a background to the collective protests there was the firing of barns and ricks and the receipt of threatening letters, often signed by the mythical 'Captain Swing'. Finally, after early concessions, order was brutally restored.

Such, in brief and bare outline, were the Captain Swing protests of 1830. In the most detailed study of the protests so far, Hobsbawm and Rudé maintain that:

> One thing can be said with some confidence: they [the protests] were essentially a *rural* and local phenomenon. That is to say their diffusion had nothing do with national lines of communication and very little to do even with the local towns. Over most of Sussex, Hampshire and Wiltshire, for instance, the movement spread across such main roads as there were from London to the coast or from one town to another...The path of the rising... followed not the main arteries of national of even county circulation, but the complex system of smaller veins and capillaries which linked each parish to its neighbours and to its local centres.[1]

It is contended that these conclusions are at variance with the evidence. In fact, the diffusion of the protests had a great deal to do with national lines of communication. Moreover, it will be argued that this altered perception of the spread of the revolt opens up new questions and possibly affords new insights into the world of the agricultural labourer. The new findings challenge not only Hobsbawm and Rudé's views on the spatial patterning of the protests but also their conclusions on the unpolitical motivations of the labourers' actions.

Thus the first part of the monograph sets out to identify

the channels along which the disturbances spread. In so doing, although we can identify pathways of the rising different to those indicated by Hobsbawm and Rudé, simple contagion models of diffusion are still inadequate to explain *why* the major routeways of southern and eastern England guided the spread of the revolt. In the second part of the monograph, therefore, the diffusion of the protests is explained in the light of the work of such historians as Charles Tilly and E.P. Thompson. Their perspective on social protest places more emphasis on the 'political' and organisational aspects of collective action. rather than on economic motivation and on the spontaneity of the outbreak of disturbances. It seeks to place collective protest within its historical context, the spread of crowd turbulence reflecting the political crisis of the day rather than the ever present hardships of the common people.

MODELS OF THE SPREAD OF THE PROTESTS

HOBSBAWM AND RUDÉ'S MODEL OF THE SPREAD OF THE REVOLT

Hobsbawm and Rudé argue that changes in the economic and social structure of rural society in southern and eastern England in the early nineteenth century had led to the pauperisation and proletarianisation of the agricultural labourer (Fig. 1). In 1830 the labourer's situation 'was such as to make some sort of rebellion inevitable'.[2] All that was needed was an initial spark. Once that had occurred, the likelihood of the labourers' protests continuing depended to a certain extent on the reaction of the authorities. Concessions on their part encouraged the spontaneous diffusion of the rioting. News of such successes would be passed on, through a network of contacts, to settlements in the surrounding region. The nature of that network would thus shape the patterning of the spatial diffusion of the rioting.

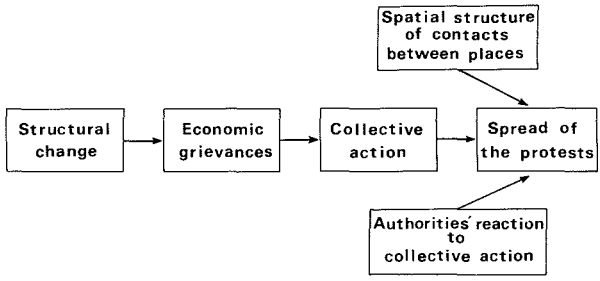


Figure 1. Hobsbawm and Rudé's model of the spread of the rioting

Three possible networks of contacts are referred to by

Hobsbawm and Rudé. The first is 'the complex system of smaller veins and capillaries which linked each parish to its neighbours and to its local centres'.[3] In 1830 the daily movements of agricultural labourers were centred on their home village and its neighbouring parishes.[4] Studies on marriage contact fields for this period clearly reveal the 'small universe' of the labourer's life.[5] It is this network of contacts that Hobsbawm and Rudé believe was crucial to the spread of the disturbances.

A second mode of spread might be that the diffusion of the protests was guided by the flow of news along the main arteries of communication. As Hobsbawm and Rudé note news did reach the village through 'artisans, shopkeepers, carters, hawkers and those coming or returning from the great outside world'.[6] The importance of such 'link men' in the spread of news has been indicated by a number of historians,[7] whilst major routeways have been identified by geographers as channels of innovation diffusion.[8] There is evidence from the nineteenth century to support this view. De Quincey wrote of 'the awful *political* mission' of the mail coach. For it was the mail coach'... that distributed over the face of the land... the heart-shaking news of Trafalgar, of Salamanca, of Vittoria, of Waterloo'.[9] Moreover, the magistrates at Poole in Dorset noted during the revolt itself:

> In this neighbourhood the most positive statements have been made by coachmen, postboys and carriers that they have witnessed mobs assembled and actual fights going on between such mobs and the peace officers...[10]

In an earlier study Rudé had already suggested a third network through which protests could spread: the network of market towns in the countryside.[11] Recent studies of French peasant movements during the Second French Republic have stressed the importance of the links created by attendances at market in the shaping of the pattern of mobilization,[12] while Hilton has also noted their role in the peasant revolts of medieval society.[13] Moreover, in her account of the Swing revolt, Dutt has maintained that market towns acted as relay stations in the diffusion of the rioting.[14] There is thus a third possible mode of spread: the journeyings of men and women on market days to their nearest market town.

To ascertain through which of these contact structures the protests diffused it is necessary to compare the possible patterns of spread with the actual spatial diffusion of the rioting. It is here that we become aware of the hidden pitfalls for those unaccustomed to viewing phenomena from a spatial viewpoint, and here it will be shown how errors in Hobsbawm and Rudé's procedure for examining the spread of the revolt led them to incorrect conclusions.

HOBSBAWM AND RUDÉ'S RECONSTRUCTION OF THE SPATIAL DIFFUSION OF THE REVOLT

There were two flaws in Hobsbawm and Rudé's analysis of the

spread of the revolt. First, they used the counties of England as the basic collecting units for storing and ordering information on the location and timing of the disturbances. The problem is that the county is a completely arbitrary and inappropriate collecting area for information of this kind; adjacent villages separated by a county boundary are assigned to different collecting units, and groups of villages that should be regarded as distinct are lumped together in the one county. One can see the effects of this in their narrative of the spread of the disturbances.[15] Events that should follow on one from another are separated by pages of text or are even found in different chapters[16] and, if the county boundary cuts across a related series of protests, the diffusion of the rioting may appear more random than it actually was.[17] Moreover, if two series of disturbances occurred simultaneously in the same county but separated in space by many miles, a day-by-day account of the rioting for the whole county gives the erroneous impression of a staccato, irregular spread for the revolt.[18] Narrative skills that can describe the storming of the Bastille can only be effective when describing events on a much larger stage if the narrator has mapped the temporal sequence of events in the greatest detail possible.

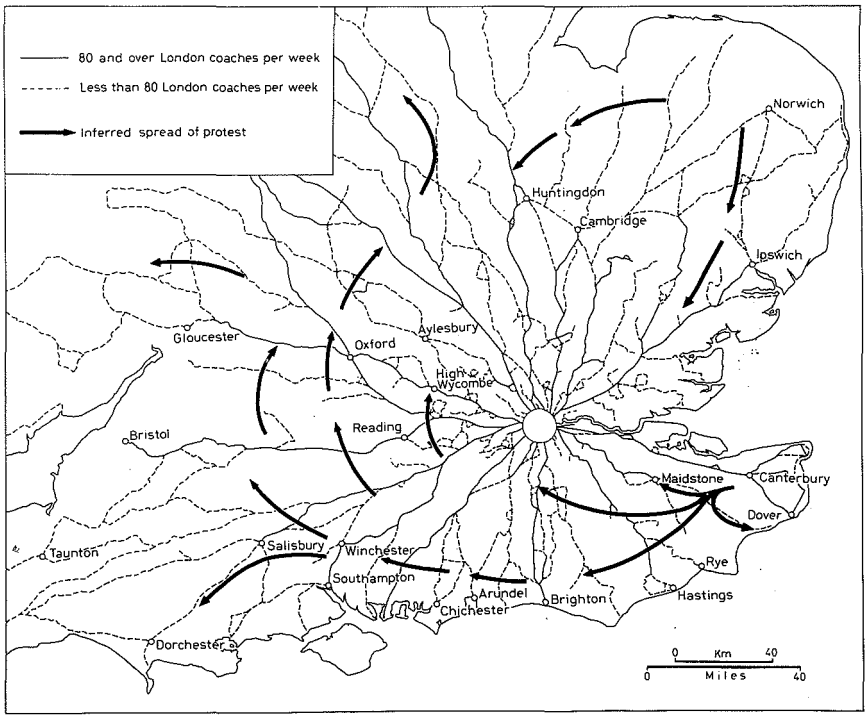


Figure 2. Rudé's map of the spread of the Captain Swing riots (after Rudé 1964)

Secondly, even the act of mapping is not without its hidden traps. The choice of an appropriate base map to test one's hypotheses is critical. The only map of the diffusion of the protests that Hobsbawm and Rudé appear to have employed was that in Rudé's earlier study *The crowd in history*,[19] and in which Rudé had plotted on a blank base map only the first protest either in each series or in each county. Rudé then interpolated the path of the revolt between the occurrences and found that it crossed the majority of the major highways of southern Britain (Fig. 2). What Rudé did not realise was that if he had mapped the first protests directly onto a base map of the major roads of southern Britain then many of them would have occurred on or near these roads. Furthermore, if he had continued mapping the second, third and fourth riots he would have found that the protests in each region spread along the major routeways. Such errors in their method of analysis precluded a true test of their model and led to a wrong conclusion.

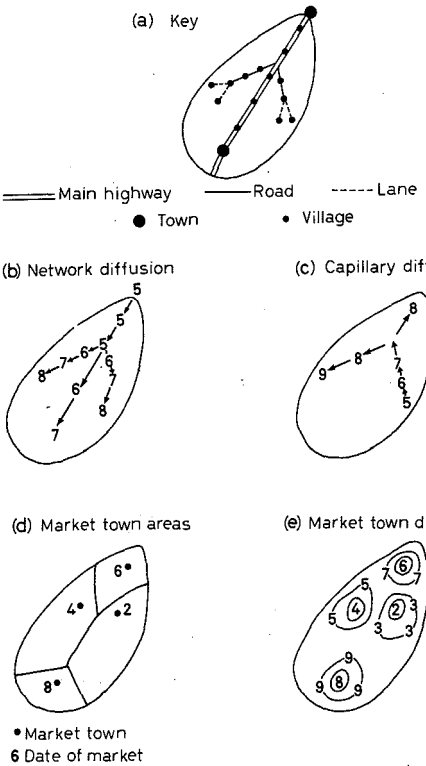


Figure 3.
Spatial templates

SPATIAL TEMPLATES OF THE SPREAD OF THE REVOLT

An alternative procedure which could have been followed is to assign to each of the three possible models of spread a particular spatial template, or an appropriate representation of the hypothesised spatial diffusion of the rioting (Fig. 3). For the mode of spread proposed by Hobsbawm and Rudé to be correct one would expect a pattern of spread cutting across the main routeways of an area for here the protests followed the back roads connecting village to village. In Figure 3(b) the riots were assumed to commence in the east. In the case of the highway model, one would expect the disturbances to spread first along the main routeway and only later off down the country lanes (Fig 3(c)). For the market model the diffusion of the news of the protests, and hence the rioting, would be controlled by the market day of the various market towns in the region. Consequently, unlike the first two templates, the pattern of the spread would be discontinuous through space (Fig. 3(e)).

Such an approach allows us to identify possible patterns of spread of the revolt from the actual map of disturbances. As we have seen, if the identification procedure is to be effective it will be necessary to map the protests in the greatest detail possible upon an appropriate base map.[20] In this case a map of the main highways[21] and towns[22] of southern Britain was selected as most appropriate, with highways being defined as those carrying stage-coach - rather than carrier - services. This has the initial advantage that coach routes can be more precisely mapped than the carrier routes. Moreover, as we had previously examined the diffusion of the riots and therefore knew approximately the paths of the spread of the revolt, the danger of subjectivity in routeing a carrier's way would have been ever present.[23] Constructing shortest paths through a maze of roads would have been too time-consuming given the amount of data to be processed. Furthermore, preliminary surveys of both coach and carrier networks, particularly the network of roads with the greatest flows of traffic, showed a high degree of correlation between the two systems.

On the base maps a distinction has also been drawn between the London and the cross-country networks. This has been done because Hobsbawm and Rudé were so definite in their claim that the diffusion of the disturbances '... had nothing to do with national lines of communication ...', that is, the London network of coaches.[24] In testing the highway model there are then two possible systems of highways through which the protests could have spread: the London network and the cross-country network.

FURTHER TESTS OF THE HIGHWAY AND MARKET-DAY MODELS

Further tests can be performed to indicate whether the diffusion of the rioting was related to either the flow of news along the main routeways or through a network of market towns. Firstly, one would expect that if the spread of the protests was related to the news of successful protests elsewhere, then the speed of the diffusion of rioting would vary with the amount of traffic along particular sections of the road. Another test of the highway model would involve a comparison of the speed of the spread of the rioting with the speed of travelling by road. Lefebvre compared the speed of the spread of the Grear Fear in France in 1789 with the expected speeds if the Fear had been either spontaneously generated or '... transmitted by carriers sent out especially for the purpose by conspirators...'[25] Invoking a model that the protests were spread by men moving along the highways obviously resurrects the model favoured by the authorities of the time, that is, a conspiracy model where agitators move through the countryside rousing otherwise passive men to action.[26] It is as well to check whether this could have possibly occurred.

With regard to the market-day model, where it is suspected from the spatial and temporal patterning of the riots that a town's market day appears to be influencing the timing of the protests in its hinterland, this can be checked statistically by assigning each incident to its nearest market town and noting the coincidence in timing between the incident and the market day.

THE ANALYSIS OF THE SPREAD OF THE PROTESTS

THE EVOLUTION OF THE REVOLT

Before testing the three models of spread, it is as well to remind ourselves that the spread and evolution of the revolt was not shaped solely by the particular network of contacts. As noted earlier, in discussing Hobsbawm and Rudé's model of the Captain Swing revolt, the spread of the rioting was also conditional on the reaction of the authorities to the protests and on the determination of the labourers in the face of that reaction. It will accordingly clarify the analysis if we first look at the development of the revolt to see how the changing patterns of the spatial diffusion of the rioting were related to the 'balance of forces' between the labourers and the authorities.[27]

The period of the revolt has been taken as from 28 August 1830 - the first destruction of a threshing machine in 1830 - to the end of March 1831. From then on the protests became very sporadic both in time and space, the only exception being the renewed rioting in Kent in late July and August 1831

(Fig. 20). The evolution of the disturbances can best be described with reference to the three major regions of the revolt: Kent and east Sussex, the first areas to be affected; southern and central England, where the climacteric of the protests occurred; and East Anglia, the last major region to be affected by the revolt.

Kent and east Sussex

The first period of the revolt occurred between 28 August and 22 October almost wholly within Kent. It was characterised by sporadic outbursts of action on the part of the labourers, these mainly being acts of arson or the sending of threatening letters (Figs. 4 and 5).[28] They were individual acts that could be done with little risk of detection. Similarly, the first collective protests, where groups of men smashed threshing machines at Lower Hadres and Newington, were undertaken at some distance from the main highway, under the cover of darkness, men travelling across country along narrow lanes through the night (Fig. 6). In comparison with the events in the later phases, these incidents were unusual in this respect. Both the predominance of individual acts of protest and the stealth employed in the first collective protests imply that the labourers were testing the reaction of the authorities to their

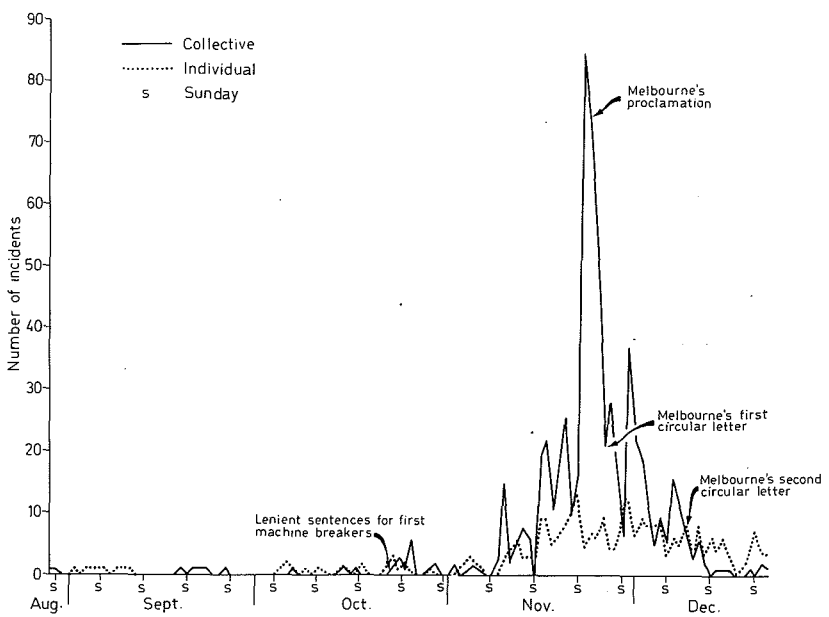


Figure 4. Time series of the revolt[29]

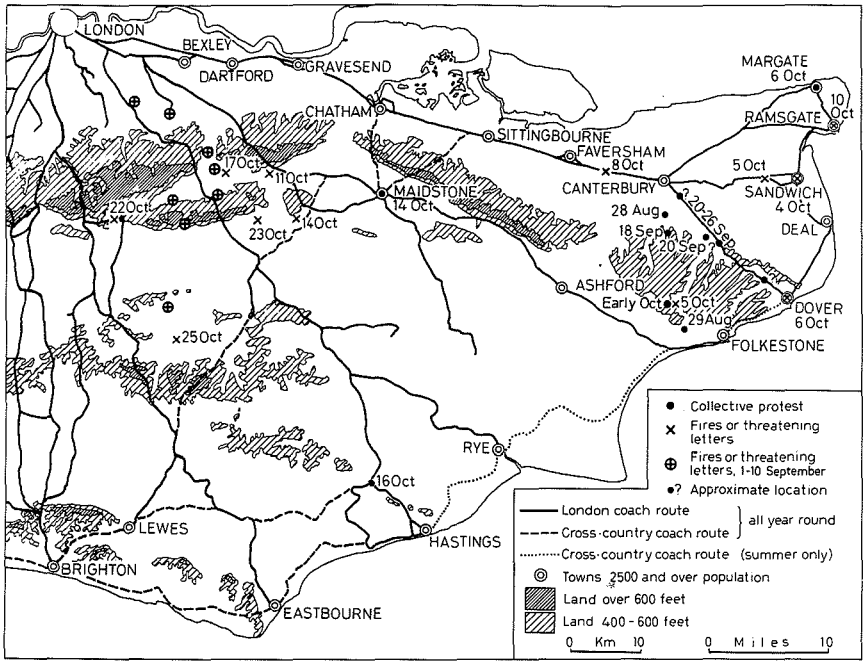


Figure 5. Kent, Surrey and Sussex: 28 August - 25 October 1830

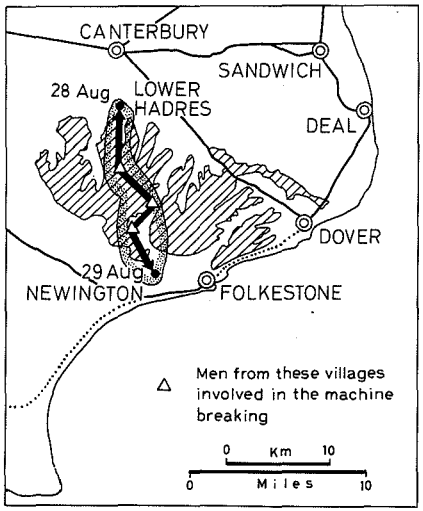


Figure 6. The first machine breaking raids in Kent 28 - 29 August 1830

protests. The sporadic outbreaks of protest continued until 22 October when the first machine breakers were brought to trial at Canterbury.

At that trial the machine breakers were discharged with a caution and a three days' prison sentence. Inasmuch on the three days following the magistrates' decision, threshing machines were broken in a number of villages to the east of Canterbury (Fig. 7), this may have been quickly perceived as a concession on the part of the authorities.[30]

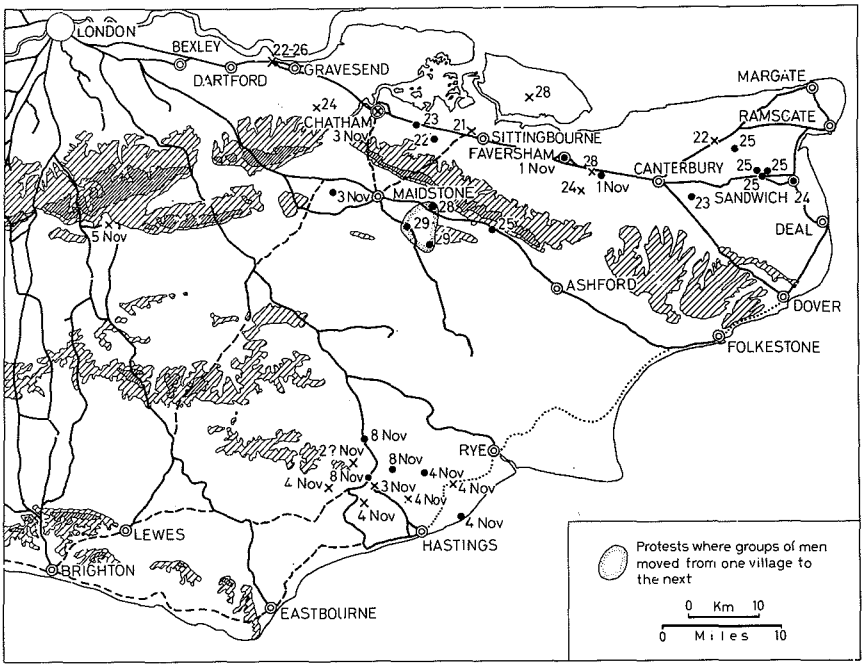


Figure 7. Kent, Surrey and Sussex: 21 October - 8 November 1830

Moreover, up till that time collective protests - save for the events at Madistone on 14 October and at Battle on 16 October which had been connected with William Cobbett's tour of the area - had been confined to the region bounded by Canterbury, Margate, Dover and Folkestone. On the night of the sentencing, however, a threshing machine was broken near Sittingbourne and on 25 October protests occurred on the London-Maidstone-Folkestone road (Fig. 7). Collective protests thus rapidly became more numerous than individual acts of protest (Fig. 4), and at the same time the former began to occur in broad daylight. Furthermore, a new form of protest, involving demands for higher wages, occurred on 23 October. By the first days of November the disturbances had spread to yet another of the London highways in south-east England - the London-Hastings

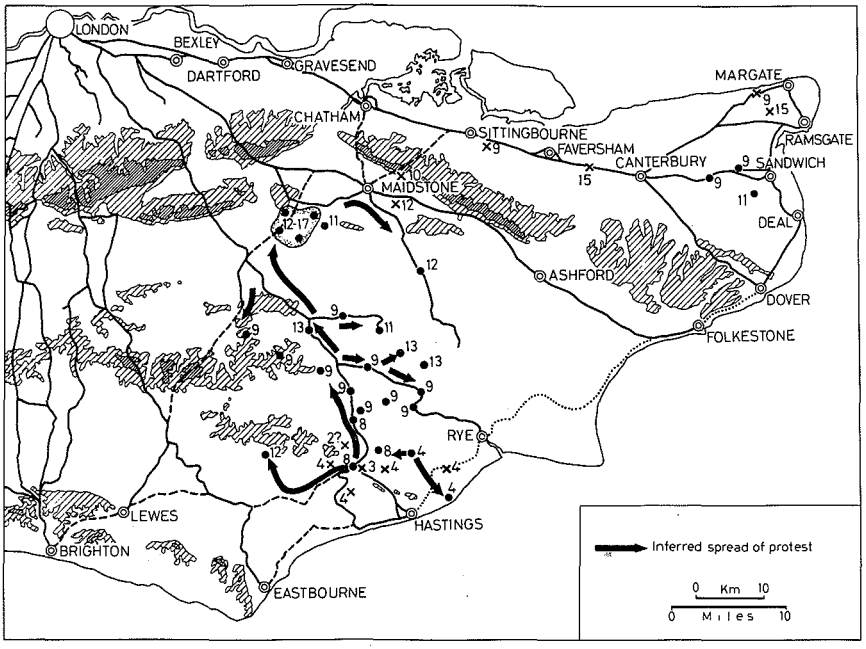


Figure 8. The first wave of protests commencing at Brede on 4 November 1830

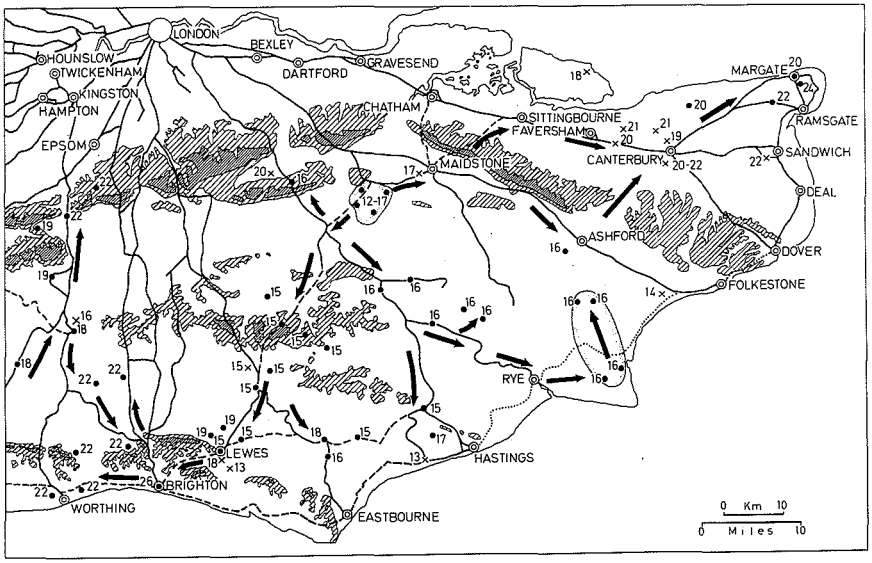


Figure 9. The second wave of protests in the Brede series: November 1830.

road (Fig. 7). On 4 November the first of a massive series of protests that were to sweep across the whole of southern and central England commenced at Brede, near Hastings (Fig. 8). A new phase of the revolt had begun.

But why had the revolt been allowed to gain such momentum? It is worthwhile pausing at this moment to consider the role of the authorities in these events, and certainly their actions at this moment contrast with those taken after the rioting had reached central-southern England in mid-November. For several reasons, it was difficult for the government or the magistrates to act effectively to check the protests at this point in time.

First, the local forces of law and order were too meagre to deal properly with such an emergency. A report to the Home Office from Battle, for example, noted the 'want of a regular system of acting with respect to the various tumultuous meetings that are daily occurring'.[31] Second, the political climate at that time hindered the prospects of reasserting order. On the one hand, the widespread discontent with Wellington's administration and particularly its position on parliamentary reform meant that there was a reluctance on the part of the rural middle class to join any force which might be ordered to act against the rioters.[32] Many farmers refused to be sworn in as special constables in Kent saying that '... the cause in which the labourers were engaged was theirs.'[33] Two attempts at the enrolment of yeomanry units failed.[34] On the other hand, the unpopularity of Wellington and the distrust of his actions during the heightened reform agitation which followed the revolutions in France and Belgium made the government reluctant to use troops in the disturbances in Kent. 'The least step in this direction and Wellington would be accused of attempting the role of a British Polignac and might well find that instead of repressing riot he had provoked revolution.'[35] As a clergyman from Tunbridge Wells wrote to Sir Robert Peel on 22 November:

> A [Royal] Proclamation ... promptly backed by the military; and a few examples made of the most daring offenders, might, in a great measure, if not totally, check the progress of an evil which has now spread generally throughout the county of Sussex, and is diffusing itself in all directions: the consequences of which no one can calculate. Their impunity increases their hardihood and makes them suppose either that Government is indifferent to their proceedings or is too weak to put them down.[36]

The vacillation on the part of the authorities and the feeling of identity by many farmers with the labourers' cause help to explain two further features of the disturbances in Kent and east Sussex. First, the Brede series of protests consisted of more than one wave of disturbances. The rioting spread first along the London-Hastings road between 4 and 5 November (Fig. 8) only to be followed by a backwave of

disturbances between 15 and 17 November (Fig. 9). In contrast, in central-southern England, a wave of disturbances would spread only once through an area, the authorities immediately reasserting order. Second, in Kent and east Sussex, even after the waves of rioting had died down there was still more than a flickering of resistance on the part of the labourers (Fig. 10). Hobsbawm and Rudé conclude:

> ... it seems likely that, in Kent at least, the disturbances would not have lasted as long... if the government had had the means, and the farmers and justices the means or the will to check them.[37]

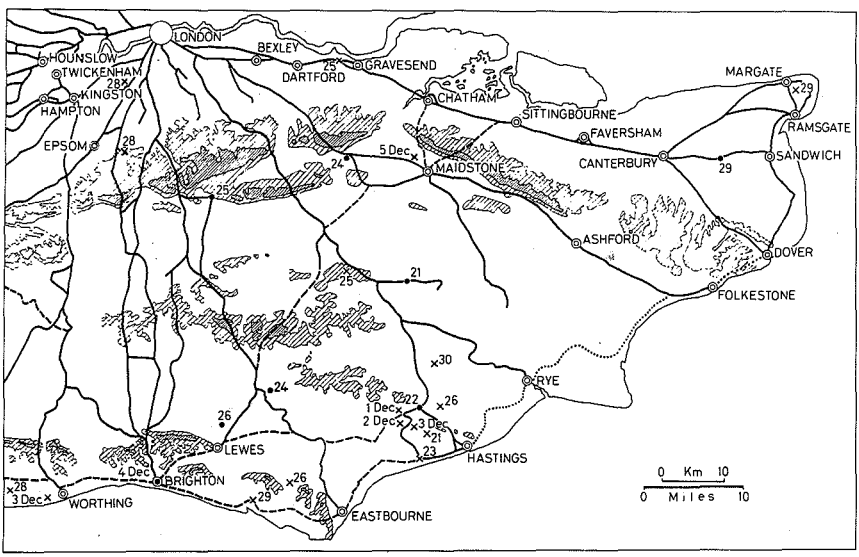


Figure 10. Kent, Surrey and Sussex: 21 November - 4 December 1830

Furthermore, it should come as no surprise to learn that the only region in 1831 to see a renewal of the revolt was east Kent in late July and August (Fig. 20).

Southern and central England

The events in Kent and east Sussex between 4 and 9 November heralded the great surges of protests that swept across southern and central England from 15 November to 10 December (Figs, 13, 14 and 16). So widespread was the movement and so rapid was its spread that anyone travelling along one of twenty different coach routes from London on 22 or 23 November could have encountered at least one group of demonstrators (Fig. 12).[38] The waves of collective protest were often

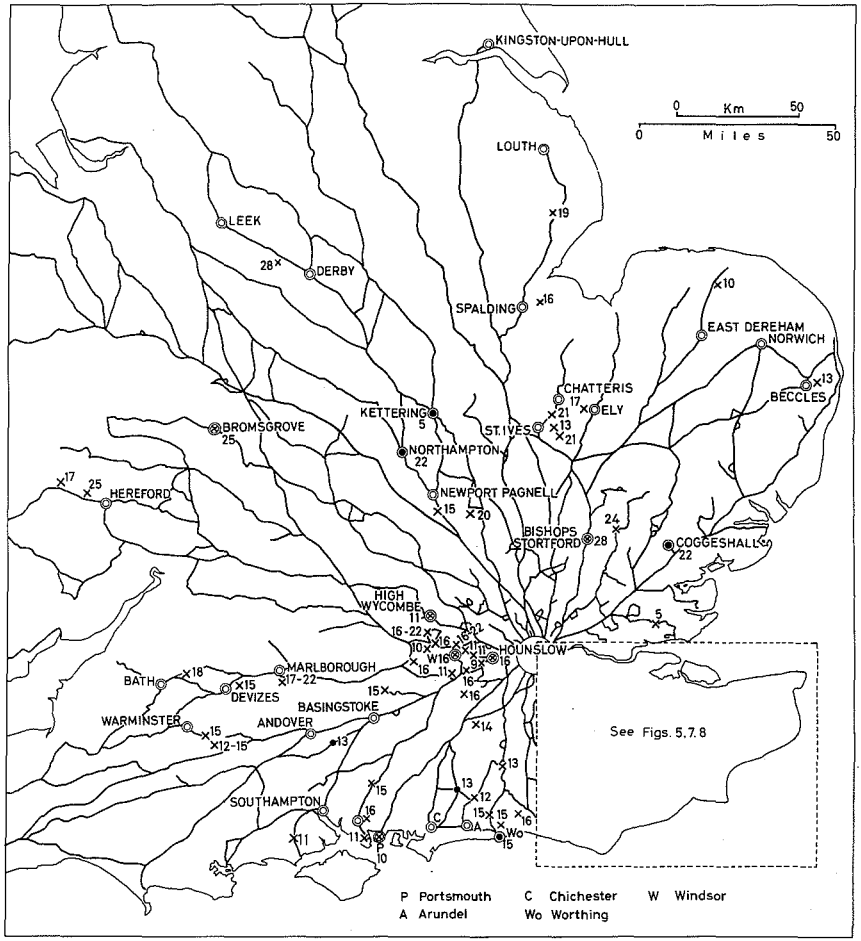


Figure 11. The scattering of incidents before the main waves of disturbances

preceded by no more than a scattering of individual acts of protest, now mere harbingers of the approaching storm (Fig. 11). The riots often had a certain ceremonial attending them with labourers parading through village and town streets sometimes in their best clothes. Groups of men moved freely about the countryside, the extent of these perambulations being most noticeable in the Kennet valley of Berkshire (Fig. 14, inset).

Nevertheless, by 23 November the revolt had begun to falter (Fig. 4). The surges of protest that *started after* that date

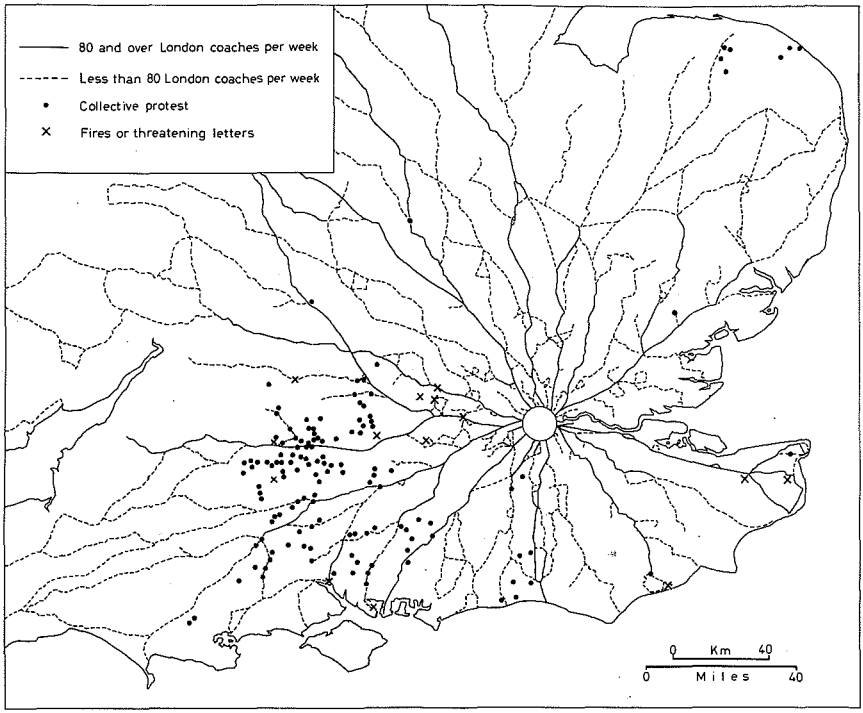


Figure 12. Disturbances on 22 and 23 November 1830

were no longer continuous in space: clusters of riots occurred amidst an otherwise tranquil countryside (Figs. 14 and 16). By 29 November, save for the protests along the main Cambridge - London road, it becomes increasingly difficult to detect waves of disturbances. Order had been reasserted. Except for the scattering of collective protests in areas peripheral to southern and central England throughout December (Fig. 18), the revolt had gone underground (Fig. 19).

Why had the resolve of the labourers faltered at the height of the rioting? The clergyman from Tunbridge Wells had noted how this might be brought about and, indeed, a changing attitude on the part of the authorities does seem to have played a part in the stamping out of the protests.

In this context, it is instructive first of all to look at Hampshire and Wiltshire where the movement principally started to falter. Here it appears that the landowning class took a much more active role in the suppression of the rioting. For example, there were a greater proportion of disturbances that can be classified as 'riots', incidents involving assault or

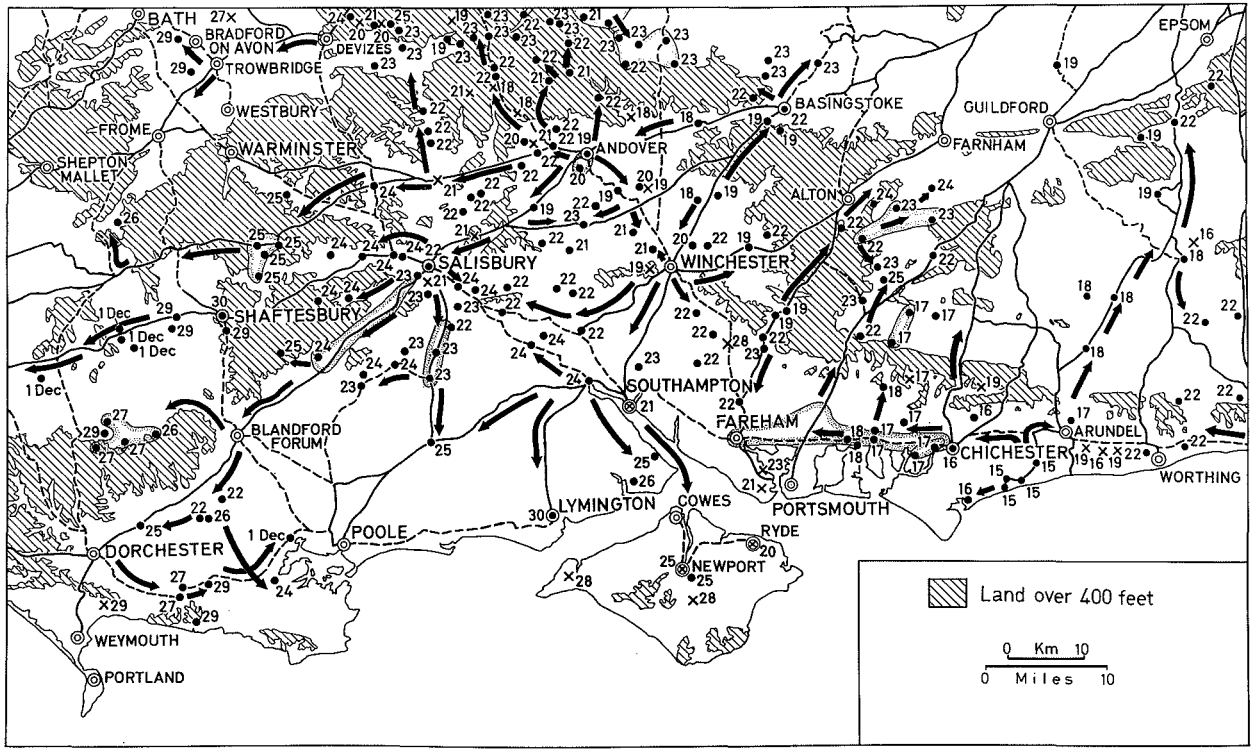


Figure 13. The waves of rioting in Southern England: November - December 1830

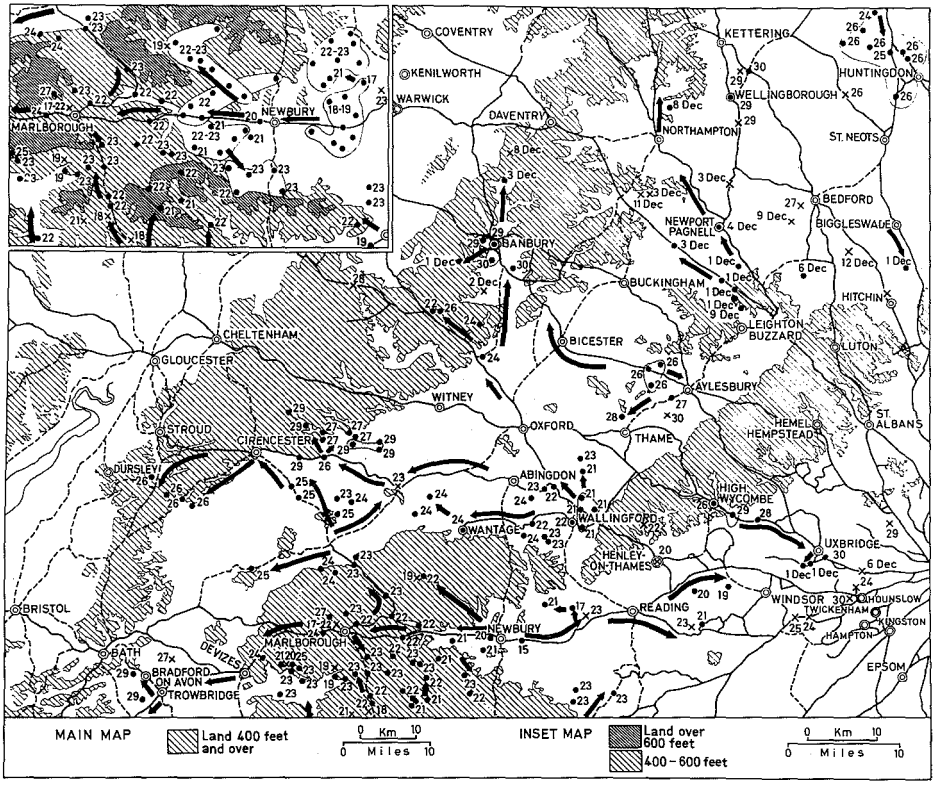


Figure 14. The waves of rioting in Central Southern England : November - December 1830 (Inset: Detail of the bands of men who moved through the Kennet valley)

the release of prisoners (Fig. 21). Disturbances often escalated to this level of violence through the active intervention of the authorities.[39] In Wiltshire it is known the yeomanry rode round the county with great zeal.[40] Moreover, a changed attitude towards the protests with the determination to maintain law and order at all costs can be seen from 'the bitter vindictiveness displayed ... by the landowning juries ... at Winchester and Salisbury.'[41] A rioter in Wiltshire was three times more likely to be transported than to be given a jail sentence than a rioter in Norfolk.[42] Thus in Wiltshire and Hampshire the revolt was checked immediately with great severity. In the less socially polarised societies of Kent, east Sussex and East Anglia the revolt lasted much longer with a number of recurrences of the disturbances.

Secondly, by 23 November, the new Whig administration of

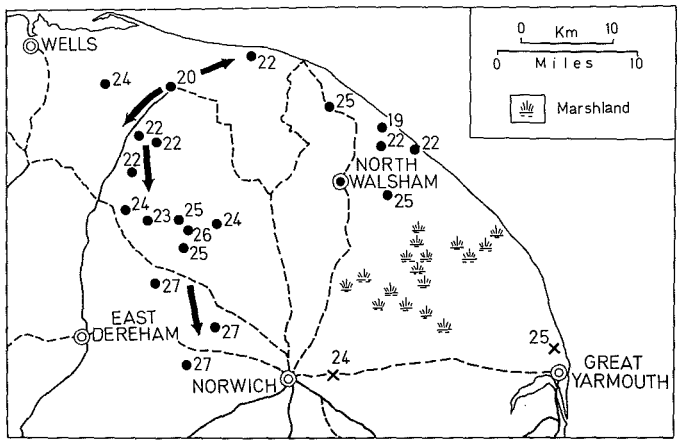


Figure 15. North Norfolk: 19 - 27 November 1830

Lord Grey had begun to take over from Wellington's government. The situation they inherited was one that a government pledged to what some would regard as revolutionary reforms could not allow to continue. It was politically expedient for them to take a more determined stance against the rioters. Lord Melbourne immediately sent out a proclamation concerning the riots and quickly followed this with a circular letter to all magistrates (Fig. 4). Moreover, the Whig view of society differed from the more paternalistic image of society held by the Tories. The tone of Melbourne's second circular letter to magistrates was such that one is left in no doubt that the Government was now prepared to defend property at all costs.

With none of the constraints of employing troops that beset Wellington, 'military officers were sent into the counties to supervise the disposal of troops and to advise magistrates on the levying of local volunteers.'[43] The latter were to create an effective policing system of the countryside. There seems to have been a deliberate attempt to create a *cordon sanitaire* ahead of the waves of protest.[44] It is interesting to note that in the West Midlands, besides the creation of a policing system, a number of steps were attempted to re-establish the paternalistic links between landowners, farmers and labourers.[45] Fears that the 'insubordination' should reach the manufacturing districts were voiced in western England as well as the Midlands.[46] Similarly the spread of rioting *towards* London in eastern England may have caused the authorities the same kind of fears (Fig. 16). The magistrates in Hertfordshire were very active in preventing the spread of protests into their county.[47]

The record of the military manoeuvres can be detected in the patterning of the spread of the revolt particularly at the

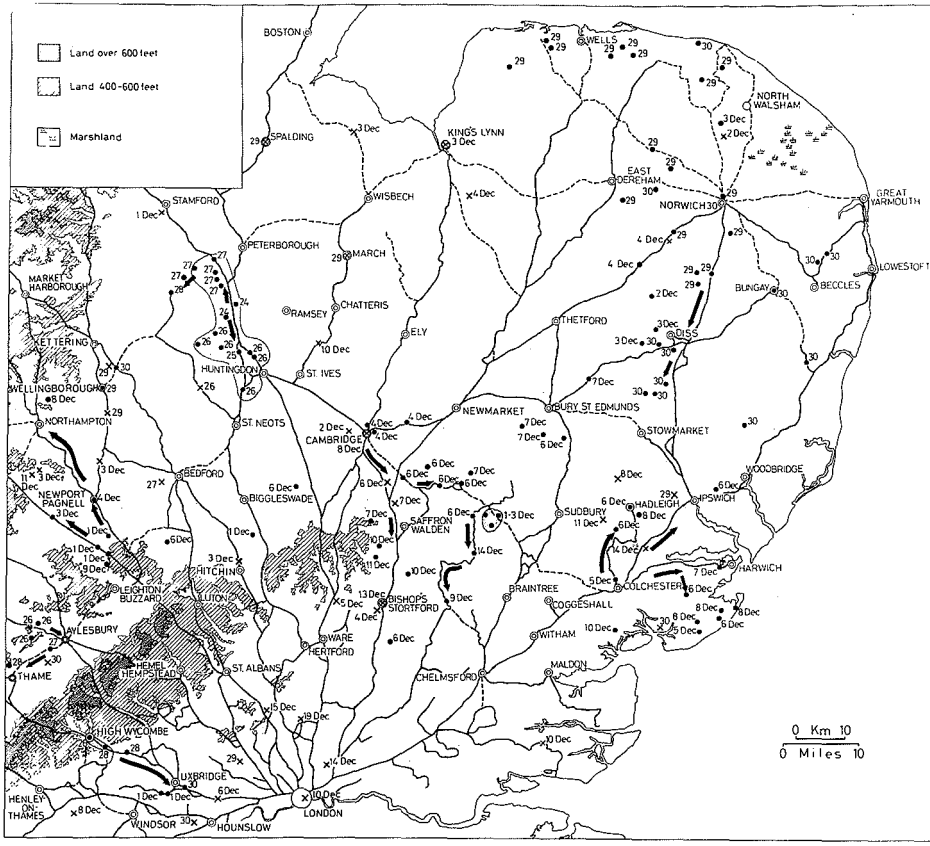


Figure 16. The rioting in Eastern England: November - December 1830

local level after 23 November. As has been seen, after this date the protests appeared again in scattered clusters, neighbouring areas remaining quiescent. The greater energy of the authorities and the military would have led to much swifter action once a protest occurred and the mobilisation of troops or the yeomanry in the surrounding villages would prevent the spread of the disturbances to the immediate vicinity. At Aylesbury it was reported that the protests of 26 November only occurred when the yeomanry had withdrawn from the area.[48] Moreover, the lack of disturbances between Abingdon and Wootton in Oxfordshire may well have been due to the presence of troops stationed in that area after the Otmoor disturbances of September 1830. Indeed Reaney notes that Lord Churchill's yeomanry arrived in Oxford on 24 November 'as a precautionary measure against the threat of 'Swing'...'[49] If one looks at

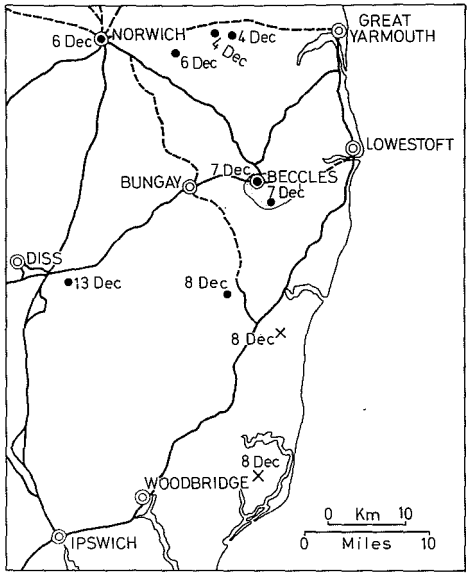


Figure 17. East Norfolk and East Suffolk: 6 - 13 December 1830

the map (Fig. 14) one sees how appropriate the timing of the arrival was.

East Anglia

The evolution of the revolt in East Anglia recapitulated in many ways the history of the protests in Kent and east Sussex. What complicates the interpretation of the events in this region is the bitter memory of the repression of the 1816 and 1822 disturbances. The rioting in East Anglia commenced with two series of protests, one at North Walsham on 19 November and one at Holt on 20 November (Fig. 15). Given the dates of the commencement of the two series what is surprising was that the North Walsham series hardly spread from the location of the first protest and that in the Holt series, though a wave of protests occurred, it was very sluggish. By the time the disturbances had spread from Andover to the Dorchester area, over fifty miles, the rioting in Norfolk had only travelled from Holt to Colton a distance of eighteen miles. The remoteness of the region from the other disturbed areas could have meant that the labourers there were initially cautious in taking action.

Their uncertainty over the authorities' reaction was to be dispelled by the extraordinary proclamations issued by magistrates at North Walsham on 24 November and at Melton Constable on 26 November and by the principal inhabitants of Holt on 27 November.[50] Although the statements deplored the 'tumultuous Rioters and Incendiaries', they nevertheless could only encourage the labourers by their recommendations that the

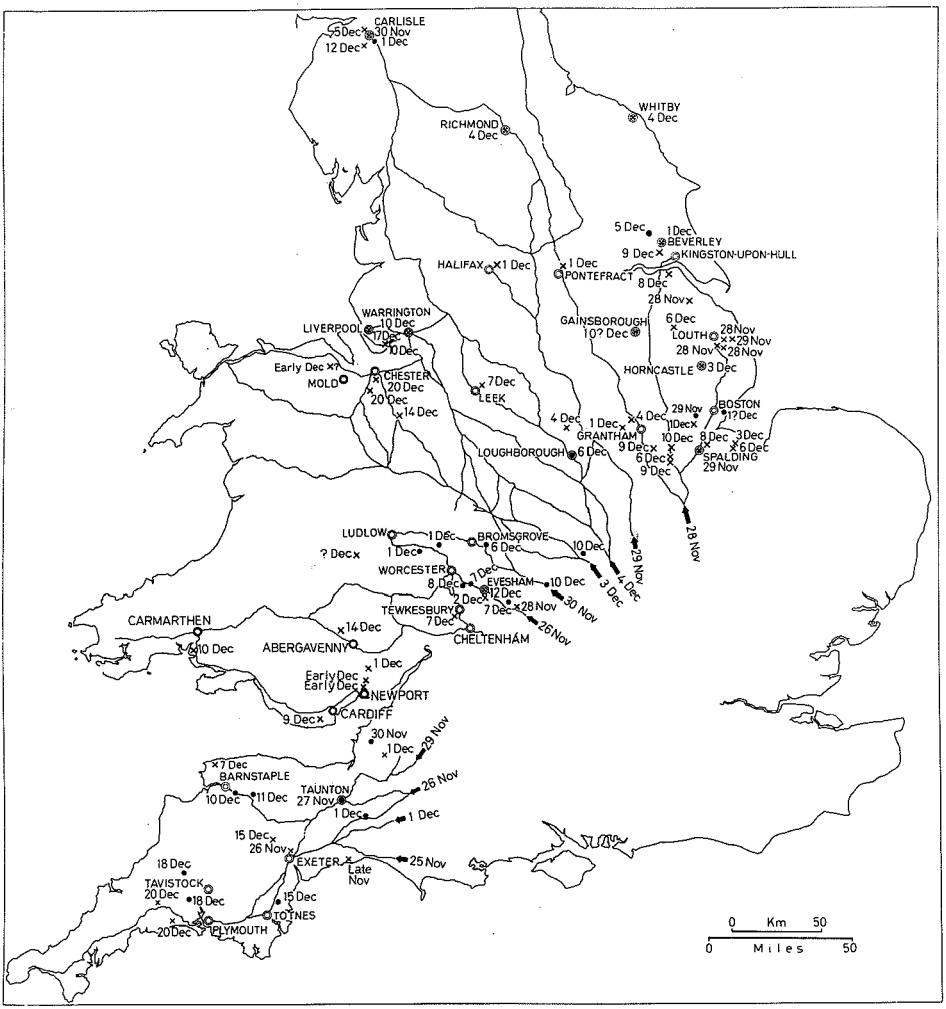


Figure 18. The spread of the disturbances in areas peripheral to the main revolt: November - December 1830

use of threshing machines should be discontinued and wages increased. This was exactly the result once the news had been relayed to the villages of Norfolk and Suffolk; principally it would seem by those who had been to the large Saturday market in Norwich on 27 November (Fig. 16). The rioters at East Tuddenham actually said that 'they had a paper from the magistrates authorizing them to break machines.'[51] The extent

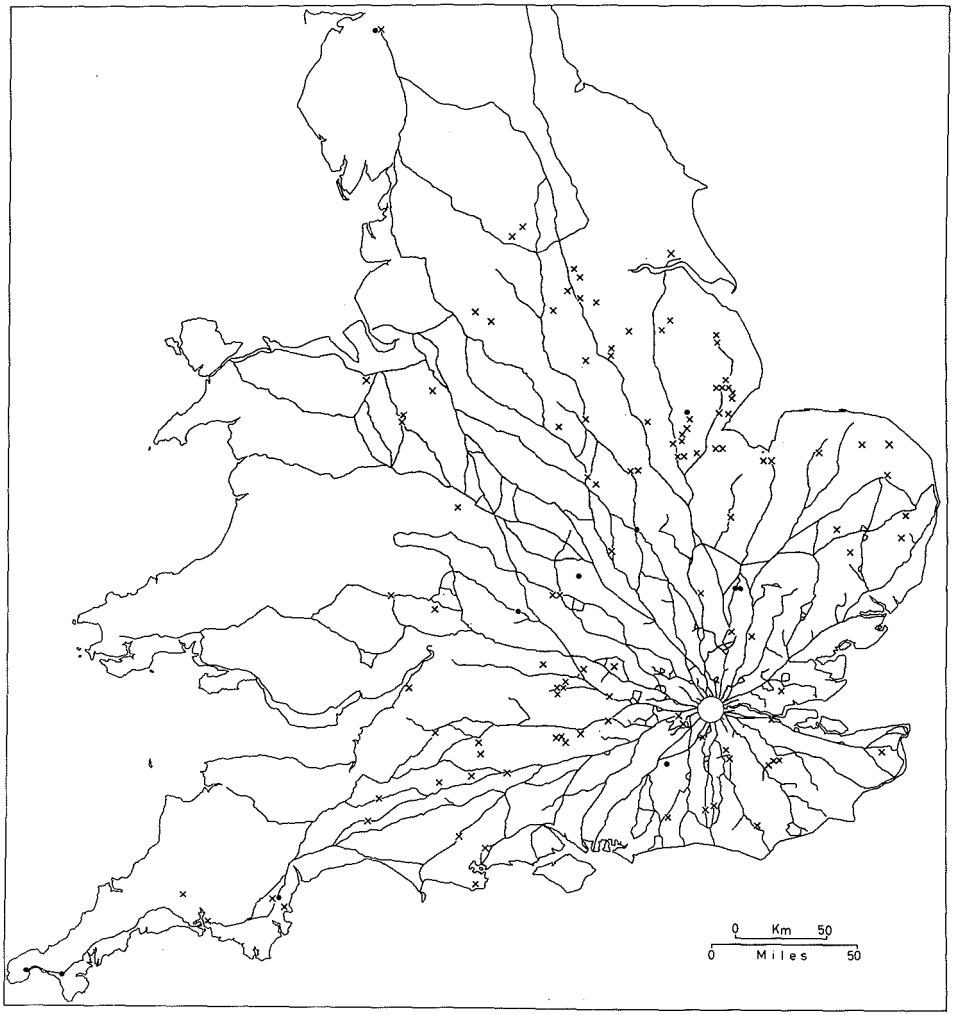


Figure 19. The aftermath : December 1830 - March 1831

of the explosion of incidents on 29 and 30 November, spanning 58 miles from Burnham Overy in the north to Kettleburgh in the south (Fig. 16), shows the degree of encouragement the proclamations gave the labourers, particularly those in south Norfolk and Suffolk who had bitter memories of the repression of 1816 and 1822.[52] Moreover, the protests that broke out in south-east Norfolk and east Suffolk the following week can be linked with a proclamation by the Norwich magistrates similar

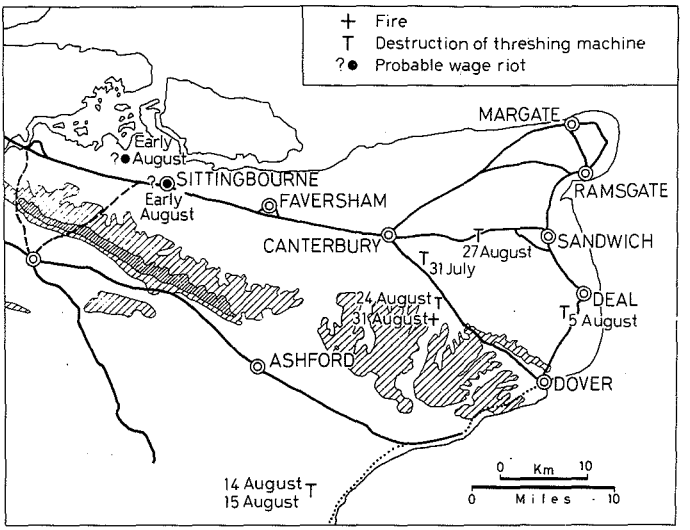


Figure 20. East Kent: July and August 1831

Figure 21. The spatial distribution of 'riots'

in tone to those issued earlier (Fig. 17).[53]

Even so, the memory of earlier repression, the Whig Government's vehement decrying of the East Anglian magistrates' sympathetic actions towards the labourers, and the deployment of the military probably prevented the explosion of incidents from sparking waves of protest comparable to those that occurred in southern England.[54] It may not be entirely coincidental that the area around Bury St. Edmunds, a location of the 1816 disturbances, was one of the last areas to riot in East Anglia in 1830, and that the Littleport and Ely region, where the most severe punishments were meted out in 1816, had no rioting whatsoever in 1830.[55]

The evolution of the revolt has been dealt with at length for three reasons. First, too often the modelling of the spatial diffusion of a particular phenomenon by geographers is *not* set in its appropriate social and historical context. Second, it is necessary to account for variations in the spatial patterning of the revolt before attempting to uncover which network of contact the protests spread through. Third, an identification of the role of repression has further implications for devising an explanatory framework to account for the occurrence of the protests. It has been noted already that the Hobsbawm - Rudé model of social protest identifies economic grievances as the cause of collective action, and they offer a tentative test of that relationship by correlating the riots with the spatial variations in the rural economy of southern Britain.[56] What they fail to recognize is that the riots die down in certain counties not only when they cross, say, the 'chalk-cheese' boundary, but also when the forces of law and order had organised themselves ahead of the revolt to prevent the spread of the 'contagion'. The authorities believed that the protests would spread into these areas,[57] so that actions to prevent such an occurrence are one explanation of the subsequent pattern of rioting. As Karl Deutsch has speculated, one should have regard to the spatial deployment of the forces of repression in explaining the spatial distribution of social protest.[58]

THE SPATIAL DIFFUSION OF THE RIOTING I

It should now be clear that in general the early and late phases of the revolt had a geography distinctive from the main period of the rioting. It would, therefore, be profitable to see if there was a characteristic mode of spread for each phase. We can then return to consider the revolt as a whole in order to examine the diffusion of the protests between regions.

The early and late periods of the revolt

The early phases of the revolt occurred in Kent. There, between 28 August and 15 November 1830, disturbances broke out sporadically in time. This pattern was repeated in East Anglia between 19 November and 13 December 1830 and over the whole of

southern and eastern England in 1831, in the aftermath of the rioting.[59] Such a pattern would accord with the predictions of the market-day model.

Accordingly to test the hypothesis each collective protest was assigned to its nearest market town, it was then noted whether the protest occurred either on a market day, the day after a market or on another day of the week.[60] The incidents were tabulated in two sets: those happening on either a market day or the day after and those occurring on other days of the week. No statistically significant link was found between the market day and the timing of the outbreaks of collective protest.[61]

In this procedure a collective protest was assigned to its nearest market town, irrespective of the latter's size. This may, however, under-estimate the role of important markets with their much wider hinterlands. Indeed, there does appear to be one region where a city's large market did influence the diffusion of the protests: the hinterland of the large Saturday market in Norwich. The characteristic ring of disturbance that the market-day model predicts can be seen on 29 and 30 November, the Monday and Tuesday following the market on 27 November (Fig. 16). The news of the conciliatory proclamations issued earlier in the same week seem to have been spread throughout Norfolk and Suffolk, most probably by carriers who came to Norwich on that Saturday.

The latter finding was, however, exceptional. What was not exceptional about both the early and late periods of the revolt was that, even though the London highway did not channel the spread of the protests during these times, a significant number of the incidents took place in settlements on or near the London highway (see Fig. 24). This may indicate that the London highway could possibly represent more than an artery of news.

The main period of the revolt

During this period waves of protest swept across southern, central and eastern England for most of their course being focussed on the London highways (Figs. 13-16). There were exceptions to that generalisation and these will be considered before proceeding to test the highway model more precisely.

First, there was the wave of disturbances commencing at Holt in north Norfolk on 20 November (Fig. 15). Although that first collective protest at Holt was on the London highway, for the most part the series of rioting was neither related to the London nor cross-country coach routes. Indeed it was the only instance where Hobsbawm and Rudé's description of the spread of the revolt fits (Fig. 3(c)). Furthermore, the fact that the cross-country routes were not the axes of the diffusion of the protests is another pointer that a highway's importance in the disturbances did not primarily rest on its role as a channel of news flow.

Secondly, there were two areas where the number of riots that were the work of groups of men moving through the countryside was unusually high. These were the Kennet valley in Berkshire (inset of Fig. 14) and the series of disturbances near the London-Stamford road in Huntingdonshire (Fig. 16). In the former protests, the pathway of the bands of men cut across the London highway, although the underlying pattern of the spread, as indicated by the first riots in the 'expeditions', was along that route. In the latter, the men's progress was in general through villages on or near the London road.

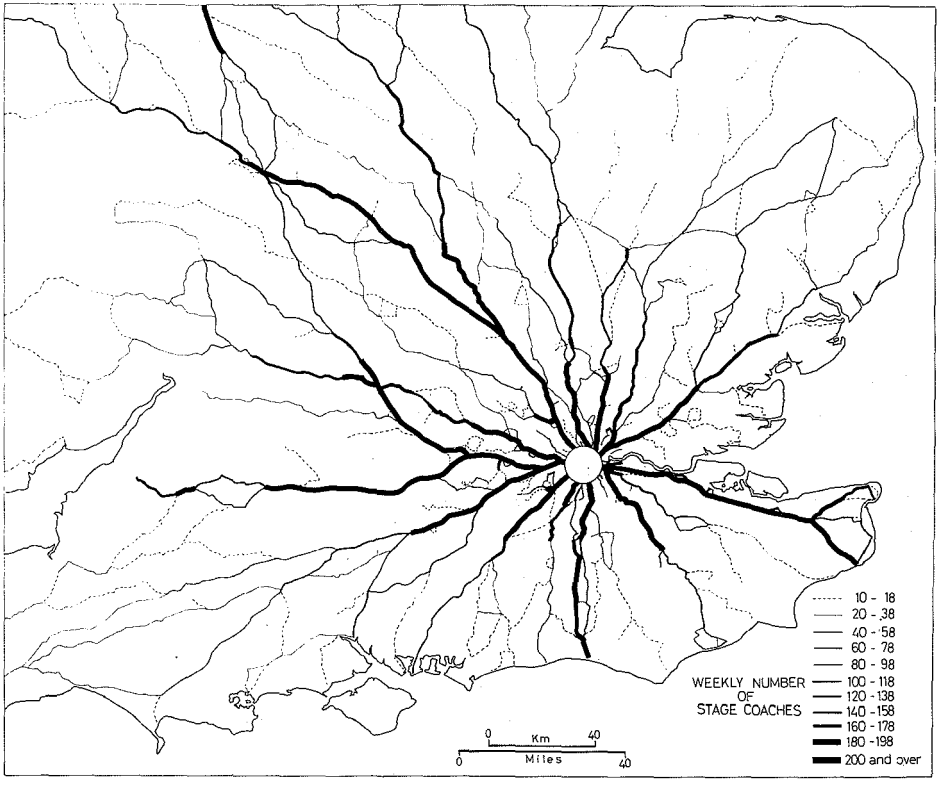


Figure 22. The London stage-coach network circa 1830

Thus with one major exception, the London highway is a persistent feature of each wave of protest. We need to discover the nature of that relationship. If the postulated model is to explain the diffusion of the protests within a given area, then there should be a correlation between the variations in the volume of news passing along a particular highway and the changes in the speed of the diffusion of the rioting. As all

but one of the waves of disturbances had the London highway as their main axis of spread and as it is known that the volume of traffic along these roads declines away from London (Fig. 22), then it would be expected that there would be a non-linear relationship between the timing of a protest and its distance along the London highway. Yet in all cases the scatter diagrams show clearly a linear plot. Indeed, where it was possible to perform a simple linear regression for a series of disturbances, it was found that the distance of a riot measured along the London road network from the area's first protest predicted quite accurately the timing of that disturbance (Table 1).[62] Thus the rate of spread along the road network was constant. It did not vary with the volume of news being carried along it.

TABLE 1

Rates of spread of the waves of protest

Date of First Protest	Wave of Protest	Rate of spread (km. per day)	R^2
4 November	Brede (London-Hastings road)	6.6[a]	.84
15 November	Bognor (London-Arundel-Bognor road)	9.8[a]	.88
15 November	Bognor (London-Portsmouth-Chichester roads)	6.7[a]	.51
15 November	Thatcham (London-Bath road)	9.6[a]	.75
19 November	Warnford (London-Fareham road)	3.9[b]	-
19 November	Micheldever (London-Basingstoke-Southampton road)	5.8[a]	.70
19 November	Overton (London-Andover road)	11.1[a]	.75
20 November	Holt (North Norfolk)	3.4[a]	.85
21 November	Crowmarsh Gifford (London-Henley-Oxford road)	7.4[a]	.78
26 November	Waddesdon (London-Banbury road)	10.3[b]	-
26 November	High Wycombe (London-High Wycombe road)	4.9[b]	-
1 December	Little Brickhill (London-Daventry road)	6.0[b]	-
4 December	Chesterton (London-Cambridge road)	6.5[b]	-
5 December	Mile End (London-Colchester-Hadleigh road)	15.1[b]	-

[a] Rate of spread estimated in regression analysis. All the b coefficients were statistically significant at the 0.1 level

[b] Estimated average rate of spread as there are too few observations to perform regression analysis.

TABLE 2

Comparisons of rate of spread of news and of social protest

	Rate of spread (km. per day)
Predicted rate of spread of news	
Carrier[a]	179
Stage-coach (main London route)[a]	322
Rate of spread of the protests	
Median rate of spread of waves of protest in the Swing revolt[b]	6.65
Median rate of travel of bands of men[c]	15.9
Rate of spread of the Great Fear in France of 1789[d]	77.5

[a] Speeds calculated from Pigot and Co. *op. cit.*

[b] See Table 1

[c] Calculated from the following occurrences of bands of men moving from village to village: those commencing at Hollingbourne on 28 October, at Romney on 16 November, at Bradfield on 17 November, at Emsworth on 17 November, at Selborne on 22 November, at West Harnham on 23 November, and at Sawtry on 24 November.

[d] Lefebvre *op. cit.* part III chapter 3.

Nor can the variations in the rate of spread between different series be accounted for by the variations in the volume of traffic moving through each area. By using the volume of traffic on the London highway nearest the first protest of each series and the estimated rates of spread (Table 1) to obtain the respective rankings, a Spearman's rank correlation test only yielded a coefficient of +0.207, which was not significant at the 10% level (n = 14). Furthermore, the rate of spread of the rioting in any one area was far below what one might expect given the speed by which news could be carried either by stage-coach or carrier (Table 2). In fact, the median rate of spread of the disturbances was less than half that of the bands of men who moved through the countryside. Moreover, such slow speeds mean that we can discount any thought of a conspiracy by agitators travelling by coach or by 'gentlemen in gigs'.

The diffusion of the revolt between regions

So far we have been concerned with the spread of the disturbances within particular regions and no consideration has been given to the diffusion of the protests between areas. Again, as might be expected, the first protests in a region tended to be on the London highway (Fig. 23). Thus, out of the twenty-three first outbreaks of collective protest in southern and eastern England, the main area of rioting, nineteen cases occurred within one mile (1.62km) of the London highway. Similarly, with the scatterings of protests ahead of the main surges of rioting, nearly three-quarters were found within one mile (1.61 km) of that routeway (Fig. 11). In contrast, in areas peripheral to the main revolt and hence where other road networks became more important than the London highway system, the rioting was much less related to the London

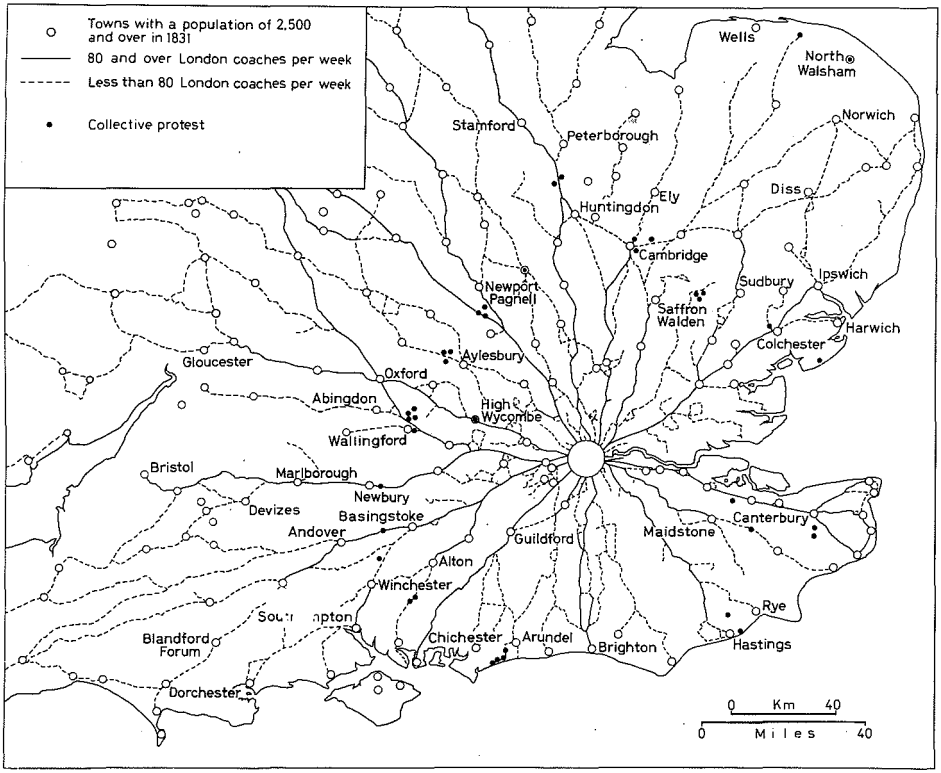


Figure 23. The first collective protests in each series of disturbances in the main area of the revolt

highway (Fig. 18). Only 25 out of 65 incidents occurred within 1 mile (1.61 km.) of that road.

For the highway model to be confirmed, however, the variations in the flow of news on the different highways out from London should predict the sequence of the spread of the disturbances from area to area, London being the hub of traffic and hence news flows. Those highways with the largest volumes of news being carried along them should experience the protests earliest. A Spearman rank correlation of the volume of traffic and the timing of the first protests in each area after the initial disturbances in East Kent produced a coefficient of only +0.01, indicating that there was no relationship between the two variables.

The other possible mode of spread of the rioting between areas is through the network of market towns. A test of this, similar in form to that carried out for the diffusion of protests in the early and late periods of the revolt, failed to reveal any correlation between the timing of the first collective protests in a previously tranquil area and the timing of the markets in their nearest market town.[63]

The evidence of the spatial diffusion of the protests clearly leads us to reject Hobsbawm and Rudé's finding that the path of the rising had 'nothing to do with national lines of communication.' Even so, we cannot offer the explanation that the spread of the rioting, like the spread of a rumour, was related to the volume of news passing along the London routeways. Rigorous testing of the highway model failed to reveal the expected results. It would appear, therefore, that the London highways were more than mere channels of news. In order to understand what other roles they could play in the outbreak of the protests, it is necessary to return to our original model of the diffusion of the riots and re-examine its assumptions.

TOWARD AN ALTERNATIVE VIEW OF THE REVOLT

Looking back at the original model of the spread of the revolt, and comparing it with recent research on social protest we find that there are three major flaws in it.[64]

First, the direct causal link from economic grievances to collective action is too simplistic. It implies a build-up of frustrations as economic conditions worsen. Once a critical threshold is passed a spontaneous eruption of collective action occurs. This is the hardship model of collective protest which has been challenged on two counts.[65] In the first place, it divorces the protestor from his social and historical context. Too often such explanations of social protest' ... conclude investigation at the exact point at which it becomes of serious sociological or cultural interest...'[66] In the second place,

hardship, although often a necessary condition, is not a sufficient cause for the outbreak of rioting. If it were, then in many societies social disturbances would be endemic both in time and space. Thus one often finds that critical deprivation thresholds were reached in areas both with or without protests.

Secondly, the original model reduced the role of the highway to no more than a bearer of yesterday's news. Other work would suggest that it had a more lasting influence on a community's life than that. Similarly, it was assumed that the arrival of news would be a catalyst for labourers to take action at once. Such an assumption implies that the men crowding around a vicarage, mobbing farmers in the market place or moving round the countryside in bands destroying threshing machines, had magically formed themselves into a crowd on hearing the news of a success down the road. This ignores both the organisation needed to bring men together and the fact that men do not live in isolation but in communities.

Our argument will now be that the Swing disturbances were not simply economically motivated. Misery and hardship alone will not explain men resorting to collective action; there needed to be amongst some of them a more questioning attitude to the web of social relationships in which they found themselves. When the time was right either one or two, or a small group who were more politically conscious, would be able, through the village's network of formal and informal contacts, to mobilise their less militant neighbours to protest. The mobilisation, therefore, did not happen magically; it required, albeit loose, a form of organisation: friends meetings in an alehouse, a road gang, a number of kinsfolk. News from up the road was not enough. It will be argued that these more politically conscious men were to be found in communities with contacts with the outside world, for it was here that questioning attitudes and radical critiques took root. Not in all communities with good external contacts but in a sufficient number that when they gave the lead other more tradition-bound villages would follow. Moreover, it will be our contention that it was during political crises that the time for protest was right, for then there was a heightening in the expectations for change in all men. It was at such a time that a conjunction between the grievances of the majority and the aspirations articulated by the village politicians became possible.

How well does such an alternative perspective match the events of 1830? In particular does it make more sense of the patterns of spatial diffusion of the rioting previously discerned, than the earlier contagion models? To answer these questions it is necessary first to examine the question of the political ideas or motivations among the labourers, especially evidence of the presence of a pre-existing cadre of grass-root politicans and radicals. One must then establish why radicalism was more likely to flourish on the London highway. Finally, the evidence of the spread of the revolt needs to be re-examined with reference to the alternative model.

POLITICAL RADICALISM AND CROWD TURBULENCE

To uncover the radical culture out of which came the militants who shaped the course of the rioting would require a work to stand alongside E.P. Thompson's *The making of the English working class*. But even in our present state of knowledge we can catch glimpses of that culture. First, it can be seen in the speeches of the labourers' spokesmen and in the threatening letters sent to magistrates, parsons, farmers and squires.

For example, more than a resonance of Cobbett can be heard in the speeches of the labourers' spokesman at Boughton Monchelsea in Kent:

> These people want bread and not powder and shot; we blame not the farmers they are oppressed with enormous taxes, and cannot pay the labourer. We want therefore a removal of taxation and abuses... It is not the labourer but the Castles and Olivers etc., who commit such depredations [incendiary acts]; we desire no such thing; all we want is our rights, and that we may live by our labour; we ask of you, Gentlemen... do that which as Men, as Englishmen, as Magistrates, and as Christians, ye are bound to do - to protect the liberties and promote the interest of the poor industrious labourer.[67]

Where that speaker drew on Cobbett's writings on the 'historic rights' of the 'freeborn Englishman'. others were prepared to press their claims with reference to political events elsewhere. For instance, Philip Green, a known Radical and a great admirer of Cobbett, who was the leader of the labourers at Tadmorton, near Banbury addressed the magistrates so:

> They have been oppressed long enough and we will bear it no longer, great changes were taking place in other parts of the world, and there must be a change here - there was plenty of money in the country if it was equally distributed - the rich have had it their way long enough, and now it is our turn - The machines must come down and every man ought to have 2/- a day.[68]

At times we can even see the tension that developed between the radical leaders and the crowd once the former strayed too far from the rights of the labourers to a fullblown attack on Old Corruption. For example, at Langley in Kent, John Adams, the Radical journeyman shoemaker from Maidstone,was the spokesman of the labourers. He harangued the vicar's son, who had come out to see what the crowd wanted, with a long catalogue of the political ills of the country. As the Treasury Solicitor's brief noted, however, 'towards the latter part of the conversation the crowd became impatient and cried, 'Sum it up, come to the point'; and then he [John Adams] said

to sum it up, "These people want money".'[69]

Somehow Hobsbawm and Rudé passed too quickly over too much of such material. A comparison of Dutt's unpublished doctoral thesis on the events in Kent, Surrey and Sussex, with their account, which drew on Dutt's researches, reveals, for example, how much of the evidence of this kind, in the speeches of the labourers' spokesmen and in Swing letters, was played down. Indeed, in Hobsbawm and Rudé's account, radicalism is pushed to a peripheral position, because of the disparate nature of the evidence linking radicalism and the protests. What they failed to see is that only a scattering of radicals may be needed to act as 'spark plugs' in the spread of the disturbances.

Moreover, Hobsbawm and Rudé were dismissive of a second type of evidence - contemporary explanations of the disturbances - that points to the influence of radicalism on the protests. Many such explanations viewed distress only as the ground upon which 'every bad advice' and 'evil-disposed persons' disseminating 'evil principles' could work. As Hollis points out, to a question put by the Commissioners of the Poor Law regarding the causes of the recent disturbances, one answer in nine in the Swing counties referred to 'inflammatory publications' or a 'licentious press.'[70] Other replies noted that the 'former honest thoughts of the lower classes were undermined' and new attitudes were adopted when men met regularly together whether at play or at work. Their comments echo John Thelwall's words that:

> A sort of Socratic spirit will necessarily grow up, wherever large bodies of men assemble...Whatever presses men together... though it may generate some vices, is favourable to the diffusion of knowledge, and ultimately promotive of human liberty.[71]

Such a spirit and such a diffusion of knowledge were dangerous, and so were the places where they flourished.

In the Sussex replies to the question of the causes of the disturbances in the Poor Law Report, we find 17 references out of 67 answers to one such meeting place for the labourers, the beershop.[72] It may be accepted with Hobsbawm and Rudé that the coincidence of the opening of beershops under a new act on 10 October 1830 and the commencement of the rioting loomed too large in the minds of the gentry.[73] The opening of a beershop, however, was probably not such an innovation in village life as Hobsbawm and Rudé imply.[74] Nightly meetings that were previously held in the shoemaker's shop, or at the blacksmith's after work, would henceforth be transferred to the new beershop, many of which, as Dutt and Hobsbawm and Rudé point out, were run by local craftsmen.[75] 'Nurseries for all kinds of vice,'[76] places 'where the dissolute may meet unperceived',[77] and 'with facilities for union and combination'[78] were attributes that could have been ascribed just as well to the earlier meeting places. The opening of a beershop simply crystallised the gentry's fears of the growing apartness and solidarity of the

labourers.

Moreover, the gentry claimed it was at the beershop and the alehouse that the lower classes had access to the seditious publications of the Radical press and the Radicals agreed.[79] Others, however, saw another grouping of men, the road gang, rather than a company of men drinking together, as an opportunity for men to 'corrupt one another' and to listen 'to every bad advice', there being no one 'to look after them'[80]

Thirdly, such groupings of men did at times give rise to more formal arrangements, like the combined Radical and Musical Society which existed near Andover in Hampshire. This Radical group was intimately involved in the organisation of the protests and is the best documented case we have to hand. It will be dealt with in some detail because, as will be seen, the proximity to the London highway of some of the principal villages involved, and the pattern of the mobilisation of the labourers here were indeed typical of the spread of the rioting.[81]

The members of the society were drawn from the villages of Bullington, Wonston, Barton Stacey, Newton Stacey and Micheldever, all within a few miles of the London highway. Three of the members of the society, the Mason brothers and William Winkworth, regularly read Cobbett's *Political Register* aloud to others in their villages. The Masons' group comprised up to thirty villagers. In October, before the rioting had reached Hampshire, the society had organised in the villages of Wonston, Barton Stacey and Bullington, a petition for parliamentary reform, which had been signed by 177 persons 'belonging to the working and labouring classes'. A second meeting of the local reformers took place at Sutton Scotney, five days before the disturbances occurred in the area. At this meeting members of the Society were present who were soon to be involved in the organisation of the protests of the local labourers.

There is, moreover, the explicit testimony of Joseph Carter that at a night-time meeting of labourers at Sutton Scotney one of the Mason brothers, Joe, read a letter, that purported to come from the village of Overton. Carter disputed that it came from Overton and claimed that it came from Enos Diddams, the leader of the society who lived in Wonston. The letter instructed them how the protest was to be carried out:

> It said we was all to leave off work; and the Sutton men was to go out and stop the ploughs. They was to send home the horses for the farmers to look after them themselves, and was to take the men with them. And they was to go and turn the men out of the barns. And they was all to go and break the sheens [sic] as the farmers had got to do the thrashing...[82]

On 19 November we find Joseph Carter amongst the protestors at Micheldever and East Stratton with the Mason brothers, William

Winkworth and James Pumphrey, also a member of the Radical group. Thus we have a Radical nucleus, responsible for proselytizing labourers in their communities and, in the immediate period of the disturbances, helping to mobilise the labourers into action.

Fourth, there is evidence that the rising political expectations of the country after the French and Belgian Revolutions and during the revival of the agitation for parliamentary reform were crucial in the evolution of the revolt.[83] It has already been shown how village politicians were both ready to participate in the campaign for reform and to use the example of political events elsewhere to press the claims of the labourers. Moreover, as Hobsbawm and Rudé point out:

> it cannot be entirely accidental that the county in which the movement first broke out was Kent, distinguished not by any unusual poverty, but by exceptionally close communication with both London and the sea and by a good deal of political discontent...[84]

Yet perhaps the decisive moment was the Reform crisis following Wellington's declaration against Reform on 2 November. Up till that time, although the protests had gathered some momentum, neither the radicals in the Newington and Sittingbourne nor Maidstone areas had been able to trigger off a concerted series of disturbances (Fig. 7). However, the crisis following 2 November and culminating in the decision of the London Radicals to call for a massive demonstration against the Government on 9 November, appears to have allowed the radicals of Battle and Robertsbridge to mobilise the labourers in a whole series of villages along the London - Hastings road on that same day (Fig. 8). It is known that on 8 November a message went out from the labourers assembled at Battle to Sedlescombe and other adjacent parishes asking for assistance to resist the military force which had just arrived there.[85] What is interesting is that this call to resistance mirrors the handbill *'Liberty or Death'* distributed in London with its call to oppose 'Peel's Bloody Gang... These damned Police.'[86] It is likely also that delegates from other villages may have visited Battle, as they did in 1831.[87] What probably tipped the balance in the local radicals' favour was the news on 8 November of the cancellation of the royal visit to Guildhall, the proposed object of the London demonstration.[88] To the politically conscious few this was a sign of weakness on the Government's part and it could be interpreted as such to the labourers who heard the news from the London carriers and stage-coach men. It was from this moment in the evolution of the revolt that the massive mobilisation of the labourers commenced (Fig. 4). The conjunction of the events in London and those along the London - Hastings road on 9 November appear to have transformed the rioting into what Colonel Brotherton later described as an 'insurrectionary movement'. Before 9 November that description was too alarmist; thereafter it was appropriate. It would appear that the village politicians in Battle and

Robertsbridge were instrumental in bringing about that change.

Finally, there are features of Hobsbawm and Rudé's own analysis to suggest that radicalism rather than hardship was the key to the rioting. In the first place, they are perplexed to find that several areas where the labourers had plenty to be discontented about had very few disturbances.[89] Moreover, at the village level, they find the degree of pauperism cannot discriminate between riotous and tranquil communities.[90] Thus they furnish evidence to reject the hardship model.

In the second place, their profile of the village disposed to riot contains many elements that would allow radical ideas to flourish. As Price has pointed out in his essay on the French Revolution of 1848, there were three conditions that promoted radicalism in a community: external contacts, an egalitarian social structure and a rich associational life.[91] The first two conditions allowed men to more easily question the traditional customs and social relationships of the society in which they lived. The third condition gave rise to regular meetings of men in which grievances and ideas from outside the village world could be aired and discussed. The first condition will be dealt with in greater detail in the next section. The latter two conditions would both be found in a typical riotous village in 1830, for:

> It would tend to be above average in size, to contain a higher ratio of labourers to employing farmers than the average, and a distinctly higher number of local artisans; perhaps also of such members of rural society as were economically, socially and ideologically independent of squire, parson and larger farmer: small family cultivators, shop-keepers and the like. Certainly the potentially riotous village also contained groups with a greater than average disposition to religious independence. So far as landownership is concerned, it was more likely to be 'open' or mixed rather than the rest 'closed' or 'oligarchic'. Local centres of communication such as ... fairs were more likely to riot than others, but there were too few of these to explain the prevalence of unrest.[92]

Large villages would support far richer forms of sociability than would small hamlets. Large labour forces would foster the solidarity and separateness of the labourers and give rise to institutions specifically for them - be they alehouses, friendly societies or chapels. These institutions would also be more likely in 'open' villages which were not only away from the paternalistic control of the large landowner, but also would have smallholders, shopkeepers and other small independent men in their midst. The latter with the presence also of a number of craftsmen would form the core of the village's more egalitarian, more free-thinking society. They would, moreover, as Hobsbawm and Rudé note, be the most likely to provide their fellow villagers with a leavening of Radical ideas.[93]

There is then evidence to link the protests to a radical culture, out of which came men of independent minds with the strength and character to organize the Swing campaign. As Raymond Williams reflects:

> Where in the eighteeneth century can we find such men...? It is hard to say, but for all the talk of the degeneration of the labourer...what I mainly notice, from this terrible period, is a development of spirit and of skill.[94]

The protests were not the desperate acts of desperate and ignorant men. They were organized by men who believed like William Cobbett that 'no society ought to exist where the labourers live in a hog-like sort of way.' These men were not ubiquitous in rural society. Radicalism and independence of spirit flourished best only in certain types of community. Hence the geography of the revolt should reflect the geography of rural radicalism.

Ideally one would wish to substantiate that relationship more clearly. As the geography of the riots is already known, this would require us to bring forward evidence for the presence of radicalism and militancy in settlements along the London highway. At the moment, however, we have too dark an image of the geography of radicalism once one moves from the glare of London and the industrial areas. Not total darkness, though, for E.P. Thompson has hinted at a more widespread spatial distribution of Radicals in 1832. By then, he believes, there was a 'Radical nuclei in every county, in the smallest market towns and even in the larger rural villages, and in nearly every case it is based on the local artisans.'[95] These had come into being through the 'multiplication' of Radical propaganda since 1816. Indeed Carlile claimed in 1830 that the *Political Register* was read everywhere in the agricultural districts.[96] And to 'prodigous effect' the Attorney General noted at Cobbett's trial.[97]

It is thus necessary to establish the role of the London highway in the growth of radicalism and the distribution of Radical propaganda. It is then possible to see how much better the patterns of spread of the rioting fit the alternative model which has been sketched out.

THE LONDON HIGHWAY AND THE SPREAD OF RADICALISM

The London highway fostered the spread of radicalism, both indirectly and directly. In the first place, the large volume of traffic on many of these routeways would generate extra employment in the settlements through which they passed.[98] Thus the village would be larger and more capable of supporting more forms of associational life than villages off the highway. More importantly such villages, being larger and having additional specialised crafts to meet the needs of the traffic, would have more than the average number of craftsmen and hence more than the average number of men freer to have and to express

radical political ideas. Moreover, as has been noted, the craftsmen's workplaces often provided the meeting places for men after work. Inns, ale-houses and beershops were also more likely to be found in a highway village.[99] Thus a highway village in all probability had a richer associational life and more men of independence and political inquiry than its neighbour. It is therefore interesting to note that of the different types of labourers involved in the rioting Hobsbawm and Rudé list eleven out of twenty six occupations related to the highway and its traffic,[100] and amongst the Hampshire prisoners there were a publican-cum-blacksmith, an ostler, a smith, three carters, a carrier, a road-surveyor, a wheelwright and a gypsy razor-grinder.[101]

Secondly, and probably of more importance, as the volume of traffic was not always large, radical ideas were more easy to come by from the 'link men' who travelled along the highways. These men were essential to the spread of ideas in a society with little peasant culture remaining, and in which daily mobility for the great majority of the labouring population was restricted.[102] By contrast, in a peasant culture it is, as Price notes, the hierarchy of markets rather than the highway which is the key to the diffusion of radicalism.[103] Moreover, it was the men who linked the village to London, the centre of Radical propaganda within southern England in the early nineteenth century, who were most likely to bring radical ideas to the countryside, and hence the crucial importance of the London highway.

The link men played two roles, one passive, one active, in the spread of radical ideas. In the first role, the London coachmen were the mere deliverers of the packages of newspapers, handbills and books of the Radical press. As there were problems of distribution once off the London coach routes, only places on the routes could be reasonably guaranteed to receive such material.[104] All of the agencies and catchment areas of Hetherington and Carlile occurred on the London highway.[105] Doherty had tried to shift the *Voice of the People* to London because he found that from Manchester the paper could not reach other provincial towns before its news was stale.[106] Thus on these routes either radical groups or even the single militant shoemaker could be sustained with a fairly regular supply of, say, Cobbett's *Political Register* and thus 'regular reading sessions' could be held as at Bullington and Micheldever.[107]

The second role concerns the link men themselves. By their contact with London they could bring new ideas and attitudes from there to the communities they passed through. They could have bought Radical papers over the counter in Carlile's Fleet Street shop.[108] They could have stood in front of the print shop windows in the crowds deciphering the latest political cartoon. At their inns and taverns, carriers could have read and discussed together the latest Radical newspapers. In 1830 they could have gone to hear Radical lectures at the newly opened Rotunda which was just around the corner from whence many

of the carriers and waggoners of Kent, Sussex and Surrey departed. Thus carriers could have had indirect contact with the Radical culture of London. They would probably not have any direct contact with the London Radicals, as country carriers often felt themselves a little apart from townsmen. Hence it is not surprising that the London ultra-Radicals knew little of radicalism in the countryside.[109] Yet it was the country carriers, hawkers and coachmen who could put in a word or open a discussion at the forge, at the shoemaker's shop, at the tavern or amongst a road gang on all they had seen and heard in London

The men of the highway were also bringers of news about other places outside the village. They could argue with the labourers, who like one Alexander Somerville met, believed that conditions were worse in their village than in other places and show them that conditions were bad for all the labourers they had seen on their journeys.[110] From their contacts with carters from other regions they would know that 'things' were bad for the labourers everywhere. Thus they could link groups of labourers together. It is almost certain that one of the group connected with the Tolpuddle Martyrs enlisted a carter to take a paper to the 'working people' of his parish in the Vale of Blackmore.[111]

Link men thus performed the role that Marx and Engels attributed to the means of communication:

> Unity is furthered by the improvement in the means of communication which is effected by large-scale industry and which brings the workers of different localities into closer contact. Nothing more is needed to centralize the manifold local contests, which are all of the same type, into a national contest, a class struggle... The medieval burghers, whose means of communication were at best the roughest roads, took centuries to achieve unity. Thanks to railways, the modern proletariat can join forces within a few years.[112]

Thanks to the traffic of the highways, in England in 1830, the labourers had contact with the outside world and labourers in other villages. Thanks to the link men they were brought a steady flows of news, ideas and attitudes day by day, month by month, year by year. As Roebuck noted in his *Pamphlets for the People* in 1835:

> New ideas cannot be introduced by any sudden or singular effort, however powerful or well-directed... It is by the dropping of water on the stone, the line upon line, the precept upon precept, that brings important change.[113]

In the England of 1830 many of the important lines and precepts originated in London. Thus the London highway was the road along which radicalism would spread and would strike its deepest roots.[114]

THE SPATIAL DIFFUSION OF THE RIOTING II

We can now reconsider the evidence of the spread of the revolt and see how well the spatial patterning of the disturbances is explained in the light of our alternative model. This will be done in five parts: the mobilisation of the labourers in each region; the targets of the crowd; the spread of the revolt between areas; a comparative study of the Swing protests with other popular movements in rural society; and finally the local patterns of mobilisation.

The mobilisation of the labourers in each region

For the first time the persistent association between the London highway and the occurrence of the protests becomes clear. If the presence of grass-root militants was essential to the outbreak of rioting, and if it was on the London highway that radicalism and militancy were most likely to develop in a community, then one would expect that at all stages of the revolt the disturbances would be related to that routeway. Furthermore, the first collective protests in each area would also be expected to occur on or near that road. As has been seen, this was what happened. Moreover, the history of mobilisation allows us to discern the possible inter-relationships between radicalism, the resolve of the labourers and the repressive tactics of the authorities.

As the number of successes on the part of the labourers grew, the location of the protests became less strongly tied to the London highway. Once the authorities began actively to repress the protests, the location of the disturbances shifted back to the London highway. This can be seen for both the complete evolution of the revolt and the regional histories of the rioting (Fig. 24).[115] This is the pattern one would expect if the resolve of the labourers was not just a question of past success but was related to the degree of radicalism and militancy within a community before the revolt commenced. In the early part of the revolt, when success was not guaranteed, one would expect those villages most likely to contain a radical element, and hence located on the London highway, to be those where protests would occur. Similarly in the later phases of the rioting when repressive measures were adopted by the authorities, only the most militant of men would still press ahead with their claims. In the main period of the disturbances less militant communities away from the main highways would be persuaded to take action.

There were exceptions to the pattern just described. In particular it is necessary to draw attention to East Anglia, and Kent and east Sussex. Certain features of the mobilisation in these regions cannot be explained at this stage. Why for example, were the first outbreaks of protest in west Kent (Fig. 5) and the very last outbreaks of protest in Kent and east Sussex and East Anglia (Fig. 24) not found on or near the London highway? There are however, two exceptions that throw more

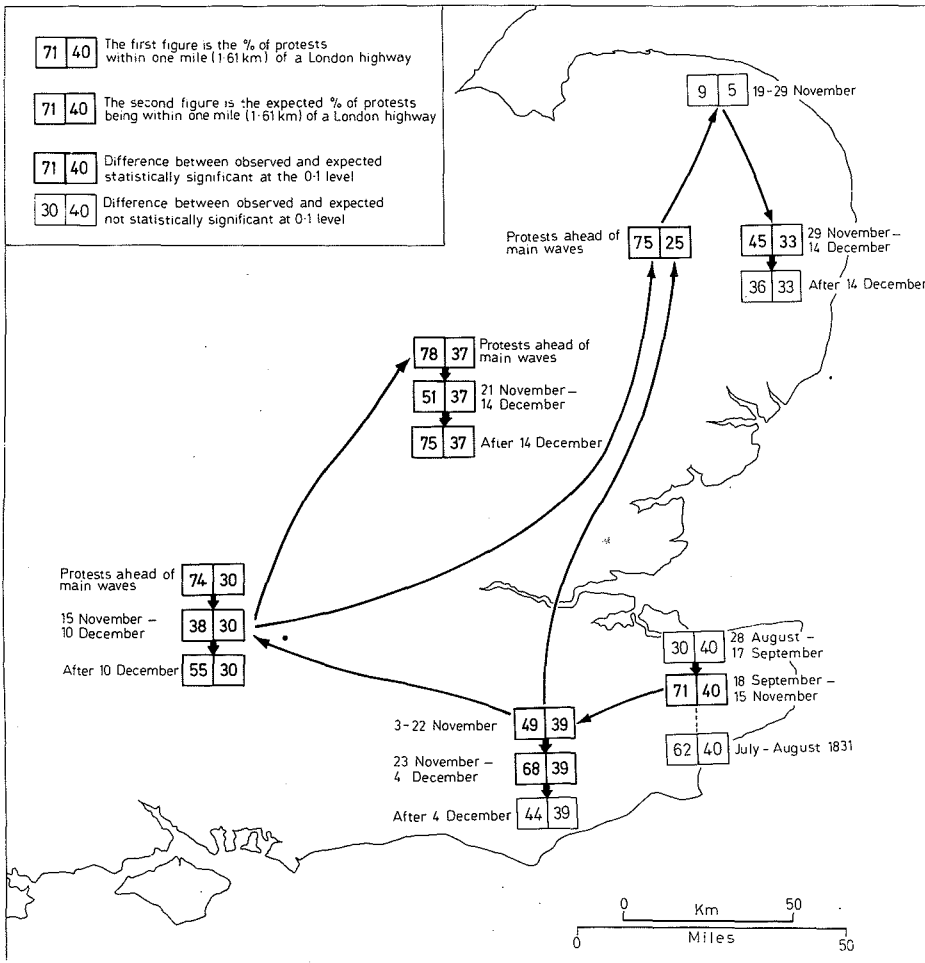


Figure 24. The relationship between the London highway and the mobilisation of the labourers

light, on the one hand, on the role of the grass-roots radicals in the protests and, on the other hand, on the relationship between the link men and the geography of radicalism.

In the first case, it is worth re-emphasising that the very first collective protests in east Kent did not occur on or near the London highway (Figs. 5 and 6). This suggests that Hobsbawm and Rudé were correct when they said that 'no element of

politics is discernible in the original centres of agricultural Luddism'[116], and that the attack on the threshing machines in east Kent on the weekend of 28 and 29 August came as a 'bolt from the blue'.[117] Without the growing political expectancy no more would probably have been heard of it but in the late summer of 1830 the event at Lower Hadres came to take on a wider significance. There was a lull of twenty days between the first attack and the action at the neighbouring village of Upper Hadres on 18 September. This latter event was quickly followed by other similar actions and it was at this point that the protests began to occur on or near the London highway. The grass-roots militants began to see the significance of the attacks on threshing machines. It is they who then took the initiative in mobilising their friends and workmates. Dutt notes the gradual emergence of a more articulated movement as time passes: written demands for farmers, landowners and tithe-owners to sign and the arrangement of meetings between the gentry and the labourers.[118] By 23 October we see the first leaders of the men who can be definitely identified as Radicals, the flying of tricolours, and the first demands for higher wages.[119] The very first collective protests should thus be considered, not as forerunners of the inevitable storm but more as fortuitous events whose significance had to be interpreted by a politically conscious minority.

Secondly, there were the series of protests in north Norfolk (Figs. 15 and 16). Not only was the rioting away from the few miles of London highway to be found in the region - except for the start of the Holt wave of disturbances - but also the protests had little connection with the cross-country coach routes.[120] This may indicate that it was the carrier network focussed on Norwich that was crucial in fostering the growth of radicalism. It is known that Norwich had a long history of radicalism from the Corresponding Societies in the 1790s to Hampden Clubs in the 1810s. During the former period affiliated societies were established in many Norfolk villages, transmitting 'their motions to the larger committee at Norwich.'[121] In the areas of the main revolt in 1830 Norwich was perhaps the most important radical centre after London.[122] The possible importance of the carrier network is indicated by the explosion of incidents on 29 and 30 November throughout north Norfolk and indeed throughout the rest of Norfolk and Suffolk (Fig. 16). It is possible that the carriers who had been to the Saturday market on 27 November had not only brought back the bare news of the previous week's conciliatory proclamations but also their interpretation at meetings and discussions in the workshops and alehouses of Norwich. It may not be entirely coincidental that the sawyers of Norwich met on 29 November to discuss their wages and then proceeded to Catton to destroy a saw-mill.[123] All this makes even more urgent the detailed research into the Norfolk and Suffolk protests that is at the moment so sadly lacking.

The targets of the crowd

If one turns to the targets of the crowd's actions, two of them in particular point to the connection between the protests, radicalism and the London highway . Parsons who 'fleeced their flocks' and the rich 'with their dandy habits' were often the victims of arson, threatening letters and the harangues of the crowd's spokesmen. Anti-clericalism and attacks on the rich were part and parcel of Radicalism during the early nineteenth century and it was these particular targets which were more often singled out in communities on or near the London highway (Figs. 25 and 26).

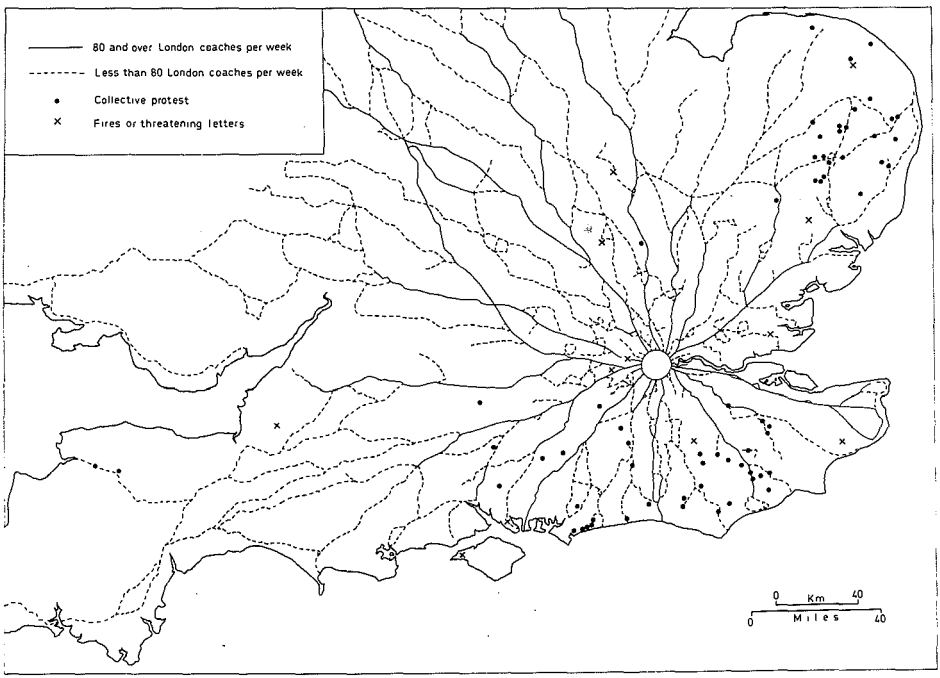


Figure 25. Target of the crowd: parsons

If one examines more carefully the location of the protests directed at the parsons or the gentry and aristocracy, a significantly greater number was found on or near to the London highway than one would expect from the overall spatial distribution of the rioting.[124]

This is supported by contemporary opinion at least with regard to the rich. Class antagonism was recorded as the cause of the disturbances in fifteen out of sixty-seven of the Sussex

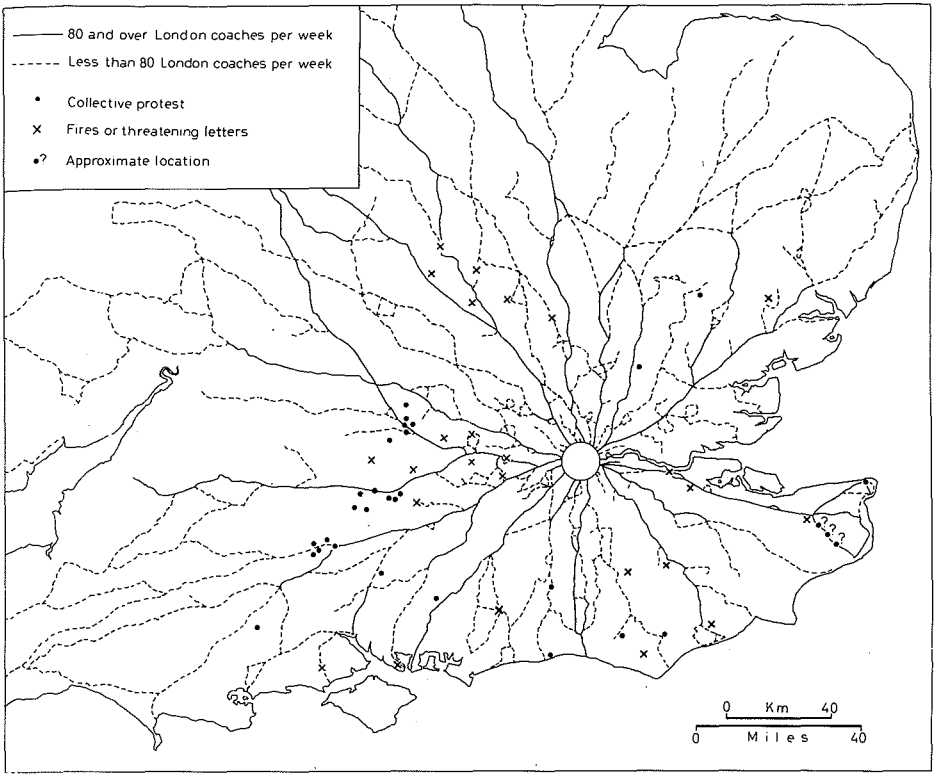


Figure 26. Target of the crowd: gentry and aristocracy

answers in the Poor Law Report but what is interesting is that fourteen of those answers came from communities on or near the London highway.[125] Class struggle was more easily sustained in such settlements because the London highway breached the rural isolation and linked the labourers through its village politicians to a wider radical culture.

The spread of the revolt between areas

As has been seen, the diffusion of the protests between areas was not related to the volume of news that reached each area. Our alternative model, on the other hand, would imply that the degree of militancy in an area would be the determining factor in the overall sequence of mobilisation.[126] Etzioni's description of a more general societal mobilisation process with its emphasis on the varying propensities of individuals or communities to take action could almost be a description of the pattern of spread of the Swing protests as revealed on our maps

(Figs. 5, 7-18):

> Mobilisation, as we see it, is usually not a mass situation in which a charismatic leader activates a large body of men (or a societal movement) more or less simultaneously, like a match set to gasoline. Rather the process is similar to lighting heavy, damp, wooden logs. If the projects are societal matches, they will ignite the conversion process only in a few limited sub-units, and only if some relatively more volatile (i.e. more given to activation) twigs are available. That is, some elites or some relatively more educated or self-conscious or unbalanced sub-units are the first to be activated. Even when these are highly mobilised... other sub-units of the same societal unit are merely beginning to 'warm up' and to be mobilised to a lower degree, while many others are still largely passive.[127]

The 'relatively more volatile twigs' would be the first areas to have protests, here there would be a greater proportion of militants within the population. The 'societal matches' would be the first attacks on threshing machines, the authorities' concessions to the labourers and the political crisis during the summer and autumn of 1830.

Partial confirmation of this is given by examining the timing of the spread of the rioting between areas and the number of craftsmen, that is, those most likely to be radicals, involved in the riots. One would expect areas where more craftsmen were involved to have protests earlier, and this was what occurred. If one ranks the number of craftsmen involved and the timing of the riots in each county, one obtains a Spearman's rank correlation coefficient of +0.68.[128] A general confirmation of this must await a detailed investigation of radicalism in rural areas in early nineteenth century England.

Rural protest in nineteenth century Britain: comparisons with the Swing protests

The massive nature of the mobilisation of the labourers in 1830 should not be underestimated. The diffusion of 'strike' waves from one *rural* area to another on the scale of the protests of 1830 was a new phenomenon.[129] In the autumn of 1830 agricultural labourers in one region responded to the actions of labourers in other areas. The example of the men of Kent was used by the labourers as a legitimization of their own actions as far west as Herefordshire and in Essex as late as December.[130] At times one can catch a sign of apprehension at their new found strength: 'for when we begin god knows what the end may be'.[131] The leader of the crowd at Fordingbridge said 'they had come down from 20 miles above London, and were going as far down the country as there was any machinery, to destroy it.'[132] Two labourers at Highworth in Wiltshire even threatened 'to go into Buckinghamshire and join the rioters there.'[133]

For '... the first and last time (until the 1870s) ... the labourers of the south and east began to feel themselves to be, and to act as a class with common objectives...'[134] Momentarily, in 1830, a developing class consciousness was revealed, a product of the growing consciousness of the similarity of conditions in different areas and of the spread of radicalism, both of which the means of communication had helped to foster. The validity of this can be verified by a comparison of the events of 1830 with those of other rural, popular movements in nineteenth-century Britain.

If, in contrast, one looks at the 1816 protests in East Anglia what is noticeable here is that the disturbances were neither so regular nor so extensive in their spread, even within eastern England.[135] This is despite the fact that the London highway network appears to be broadly the same in form, if not in volume of traffic, as in 1830.[136] What was missing in 1816 was the widespread scattering of 'Radical nuclei' in rural areas, which, as has been noted, was to develop between 1816 and 1832.

Yet, without that highway network, radicalism could not have penetrated and have been supported in the country areas between 1816 and 1832. One factor in the relative quiescence of the period from 1830 to the 1870s may have been the disintegration of the network of long-distance carriers and coaches after the coming of the railway.[137] The railway may have united the urban proletariat but in rural areas it could not perform the role that the link men of the road had. Its network was much less integrated, sparser and its stopping places much rarer.[138] Indeed, intially, it isolated the rural labourer and artisan from regular and direct contact with the urban centres of political radicalism and with labourers in other areas. No wonder Chartism barely touched the countryside. It is even possible that the village world of the 1840s and 1850s had a more restricted horizon than had the village in 1830. By the 1860s, however, this horizon was beginning to widen again. Cheap daily newspapers, national networks of benefit societies, the penny post which enabled migrants to towns to communicate more readily with their family and friends in rural areas, all of which depended to some extent on a national railway network, gradually helped to restore the contacts between the village and the outside world that the railway had originally destroyed. The development of agricultural trade unionism on a national scale then became a possibility.[139]

The history of social protest in the Scottish Highlands offers a comparable study over time of the interrelationships between collective action, radicalism and the means of communication. The Highland Clearances commenced in earnest in the late-eighteenth century and continued throughout the nineteenth century. The major outburst of protest against them and their consequences, however, did not begin until the 1880s. This is not to say the Highland Clearances between 1790 and 1880 were effected without incident but that the disturbances were

spasmodic and scattered.[140] The Crofters War of the 1880s and the land raids and rent strikes that lasted from then until the 1920s, in contrast, were a massive and extensive series of collective protest.[141] One factor of change that can be linked with the shift in the form of the disturbances was both the opening up of the area and the integration of the formerly scattered communities of the West Highlands and the Islands, from the 1850s onwards, by the steamship and the railway.[142] Here the railway and the steamship had no previous system of daily, long distance contacts to destroy and brought instead newspapers, post and contacts with national political organizations. The crofting community on each island and in each settlement on the mainland may have emerged with the evangelical revivals of the early nineteenth century and with the Disruption in 1843,[143] but the real strength to oppose the lairds came with the closer contacts between communities and the new Radical ideas from outside that the new transport links brought into the area. They provided the unity that gave reality to the most effective of the Land League's slogans 'The People are mightier than a Lord'.

So far it has been my concern to show that massive mobilisations of the working class were the product of the unity that improvements in the means of communication made possible. Yet care should be taken that one does not evoke a technological determinism as an explanation of social protest. It has already been stressed that that unity was only made *possible* by improvements in the means of communication. One should never forget that men make their own history. Men choose to take to the streets when they believe the time is right. And this is most often when they sense that things are ripe for change, when they sense a political crisis. 'Great changes were taking place in other parts... there must be a change here.' The relationship between the political crisis of the autumn of 1830 and the evolution of the Swing disturbances has already been noted.

As Shorter and Tilly conclude in their study of strikes in France between 1830 and 1968, in such periods of political turbulence:

> it becomes apparent to the working classes as a whole that a point of critical importance for their own interests is at hand in the nation's political life ...it is then that... major accumulations of strikes and disturbances eventuate...[144]

It is only at such points in time that the more militant members can mobilise their fellow workers or neighbours to protest. It is only then they are able through 'a latticework of organisation... to transform these individual perceptions of opportunity into collective action.'[145] We must now turn to examine that 'latticework of organisation' and see how it shaped the spread of the protests in 1830.

Local patterns of mobilisation

Our original assumption that the rioting spread spontaneously ignored the fact that to get men to blacken their faces, to collect implements to destroy machinery, to march out of their villages into neighbouring parishes sometimes being gone for more than twenty-four hours, to compose and present written demands to the local farmers, gentry and parsons, to parade with flags and sometimes with bands of men from different parishes taking part, to assemble in groups of up to 1000 at one place, all these need organisation and planning.[146]

Dutt tells us how the protests were organised in Kent and Sussex:

> One man approached different labourers asking whether they would participate in a machine breaking expedition. If they agreed they were asked to assemble at a definite place. There they took instructions from a leader.[147]

In the case of wage riots, Dutt notes that a few individuals took the initiative in enlisting others. Furthermore, as has already been pointed out, she sees the complexity of organisation developing as the revolt proceeds. Hobsbawm and Rudé's descriptions of the organisation of the protests indicate that leaders were in some cases elected and that in some districts committees of delegates from neighbouring parishes were formed.[148] How else would this organisation take place but through the traditional forms of sociability in the village - kinship groups, the workplace, the beershop, the chapel and friendships?[149]

The role of the Mason brothers in persuading the men of Sutton Scotney to protest has already been outlined. Another incident reveals clearly the role of such informal and formal contacts in mobilising labourers to take collective action against their employers. Curiously, though it occurred only two years after the Swing disturbances and in a region where rioting occurred, it is rarely mentioned in the same breath. The indicent is, of course, the events that took place at Tolpuddle between 1832 and 1834.[150]

Here were a group of four men around whom the action of the labourers was anchored. They, George Loveless, his brother James, his brother-in-law Thomas Stanfield and his nephew John Stanfield, were linked together by kinship ties, by attendance at the local Methodist meeting-house, and by the fact that they had all worked on the same farm for some years. George Loveless by his role as a Methodist lay preacher was an obvious choice for leader in the long campaign of negotiations over wage reductions between the labourers of Tolpuddle and their masters. He had been elected one of the spokesmen for the second meeting between the labourers and the farmers, the one held at the County Hall in Dorchester.

The membership of the Friendly Society of Agricultural

Labourers indicates how the contacts of the group influenced recruitment. On the list of membership, seven besides George and James have the name Loveless.[151] George Romaine from the neighbouring parish of Bere was the secretary of the Society. It was Romaine's fervent preaching that had had a great influence on the lives of George and James Loveless and John Stanfield. At the meeting with the two delegates from the Grand National Consolidated in Thomas Stanfield's cottage forty labourers from both Tolpuddle and Bere had been persuaded to attend. Meetings of the society were also held at George Romaine's home, at the cottage of a neighbour of Romaine's, and later in the parish of Winfrith to the south. To the latter meetings came men from the adjoining parish of Wool, another village where Romaine had preached to great effect. Here can be seen the extension of the Society out from Tolpuddle, which was to have been the grand lodge of a Dorset network of such societies. In building such a network it appears that contact was made in neighbouring parishes where Tolpuddle men would have kinsfolk, workmates, school friends or, probably most important of all, would know men through the meeting-house circuit.

If in Tolpuddle the meeting house may have played a central role so it might have in certain areas of the Swing disturbances. *The Times* reported that in the Weald the spokesman of the crowd was 'sometimes a Dissenting or Methodist teacher'.[152] In other communities the pub and the beershop could have played a comparable role. Dutt noted that after a protest many of the demonstrators retired to them.[153] Moreover, at Brede it was reported that the riot of 5 November was plotted in a ginshop.[154] Reaney points to the importance of Higg's beershop at Charlton-on-Otmoor in the organisation of the Otmoor disturbances.[155] The weight contemporary opinion attached to the beershop and the road gang as the nuclei from which the protests were initiated has already been noted. It is known that one of the New Poor Law riots in 1835, that at Bircham, was caused by the dissatisfaction of men working on the roads.[156] E.P. Thompson suggests that agricultural gangs were important in the 1816 disturbances.[157] All these provided the nuclei where plans could be made and from which fanned out the contact networks through which a crowd of protestors could be drawn together.

The patterns of the spread of the revolt fit such a model very well indeed. The slow spread of the diffusion of the protests reflect the time needed to plan and enlist the support of one's workmates and friends (Table 1). In this respect one can discern the greater amount of discussion and deliberation as compared to the panic stricken spread of the Great Fear in France in 1789 (Table 2). Moreover, in general, the speeds recorded match very well with data on marriage distances for the early nineteenth century, which are a good surrogate measure of contact between communities.[158] The possibility of collaboration and consultation between villages is thus strengthened. Corroboration of this point is to be had if one notices how often on the maps of the spread of the protests the

relief delimits groups of disturbances. Sometimes such clusters of disturbances have their own peculiar rhythms of protest and the effect is more marked. The Vale of Pewsey in Wiltshire (Fig. 14), the Vale of Blackmore in Dorset (Fig. 13), the Meon valley in Hampshire (Fig. 13), the area between Midhurst and Farnham (Fig. 13), are all examples of such a phenomenon. In the North Walsham area in Norfolk the Broads provide the southern boundary of the rioting (Fig. 13). Barriers to movement are well known for the effect they have on shaping marriage patterns and hence kinship hinterlands.[159]

The timing of the riots adds weight to accepting an argument emphasising the planned nature of the disturbances. What is striking if one notes the day of the week on which protests occurred is the lack of incidents, particularly collective action, on Sundays and the explosion of riots on Mondays (Fig. 4). The disturbances in East Anglia between 27 November, a Saturday, and 30 November, a Tuesday, were one of the most graphic illustrations of this (Fig. 16). Indeed on 28 November, the Sunday, no incidents were recorded. This patterning appears to be true for other disturbances. The Rev. J. Surtees of Harling noted during the riots in East Anglia in 1822 that 'Sunday was a day of rest'.[160] On Sundays there may have been a rest from protests but discussions, preparations and perhaps more important journeys to nearby villages could take place. On Mondays the planned 'strike' would occur.

The degree of local planning is further revealed in the regularity of the diffusion of the rioting during the main phase of the disturbances. Few studies of spatial diffusion in rural societies reveal such a high degree of regularity in both the direction and the rate of spread.[161] From what is known of contact fields between villages, these lack the degree of directional bias needed to account for such patterns.[162] Moreover, Perry's study on marriage distances would suggest that large villages and particularly those on highways would be more self sufficient as regards contact with other villages.[163]

Local planning, therefore, to this extent suggests more than a network of casual contacts.[164] It suggests in some cases a local network of contacts between the militants; in others, militants of one village exhorting friends or relatives in neighbouring villages. By such means small elites of village politicians could effectively control the spread of the protests locally. Mr Richard Pollen, Chairman of the Quarter Sessions at Winchester, was one of the same opinion when he wrote to the Home Office on 26 November:

> I have directed the Magistrates' attention very much to the class of People found in the Mobs many miles from their own homes, Taylors [sic], Shoemakers etc., who have been found always very eloquent, they are universally politicians: they should be, I think, selected.[165]

He was in no doubt of their importance and thus the recommendation that they should be selected for arrest. The Mason brothers were so picked off.

It is not proposed, however, that there was a national or even a regional web of contacts between such men. The regularity of the diffusion rules against that, as does the fact that the protests were focused clearly around individual highways to London. If one were searching for a conspiracy or for contacts over longer distances one would expect that there would be many more dis-continuities in the diffusion of the rioting along the highways. Conspirators aim to gain the advantage of the situation by initiating simultaneously a whole series of disturbances. Only in the case of the explosion of protests on 29 and 30 November in East Anglia does such a possibility exist and this is no more than a conjecture until detailed research settles the question.

I would thus agree with Colonel Brotherton's comments that 'the insurrectionary movement seems to be directed by no plan or system' if he meant a national or regional plan. I would, however, disagree with him when he continued that the movement was 'merely actuated by the spontaneous feeling of the peasantry and quite at random'.[166] Mr. Charles Eyston J.P. of East Hendred in Berkshire had a better description of the disturbances: 'They may be traced with geographical precision'.[167] Such precision was neither the result of spontaneity nor of the chance encounters of the labourers. It was more the work of local men of independence and political inquiry mobilising their neighbours to take collective action during a period of political crisis.

CONCLUSION

At the end what has been added? Is it just another case of a social scientist ransacking and reworking data meticulously and painstakingly collected by historians? To help in that decision let us emphasize why I believe that the analysis of a popular movement from a spatial perspective can be rewarding.

In the first place, there is almost no direct evidence of how riots spread from one area to the next. Only by inference from maps charting the diffusion of the riots can one begin to sort out rival hypotheses concerning the mode of spread.[168] Often in the case of popular movements in rural society the actual mobilisation may only be documented for a few incidents. One way to indicate whether these incidents were typical or not is to assume that they were typical and imagine what a pattern of spread should follow from that assumption. One can then test this against the map patterns of the actual spread of the rioting. In this work it has been shown that the incidents about which most is known concerning the involvement of grass

root militants, or the events in the area around Sutton Scotney, appear to be typical if one is to judge from the evidence of the spatial diffusion of the rioting.

Secondly, a detailed mapping of the protests can provide one with clues as to where to 'dig' in the documentary sources to substantiate the questions and insights that spatial analysis has disclosed. All the insights offered by this study on the link between the protests and radicalism are conjectural. Whether that conjecture is well founded or not, it has at least been established that the route to that discovery will not be along the trackways of southern England but along the London highways. Richard Cobb in his review of the original edition of *Captain Swing* urged us on to study Lower Hadres, a village remote from the London highway (Fig. 6).[169] We would urge instead that studies should now begin at Thatcham, Battle, Crowmarsh Gifford, Holt. For it is in these settlements on the London highway and in studies at the community level that the history of the revolt may really begin to be unravelled.

APPENDIX ONE : MARKET DAY MODEL ANALYSIS

Before presenting the contingency tables and the chi-square analyses the calculation of the expected frequencies will be explained. As some market towns had more than one market day a week, the expected proportions of incidents falling in each of the two categories had to be accordingly adjusted. This wad done by assigning a probability of $^6/_7$ that a protest would occur on either a market day or the day after and a probability of $^1/_7$ that a protest would not so occur to incidents whose nearest market town had three market days; likewise probabilities of $^4/_7$ and $^2/_7$ to incidents whose nearest market town had two market days and probabilities of $^2/_7$ and $^4/_7$ to those whose nearest market town had only one market day. When these were summed and divided by the total number of incidents, the required weighted expected proportions were obtained.

TABLE 1

Kent 28th August - 11 November 1830

	Market Day and Day After	Other Days of Week
Observed	10	14
Expected	11.76	12.24

$\chi^2 = 0.516$ d.f. = 1 $\alpha = 0.1$

$0.5 > p > 0.3$

Therefore $p > \alpha$

Therefore $\chi^2 = 0.516$ is not significant at 10% level

TABLE 2

East Anglia[1] 19 November - 10 December 1830

	Market Day and Day After	Other Days of Week
Observed	28	40
Expected	23.7	44.3

$\chi^2 = 1.19$ d.f. = 1 $\alpha = 0.1$

$0.3 > p > 0.2$

Therefore $p > \alpha$

Therefore $\chi^2 = 1.19$ is not significant at 10% level

[1]This excludes any incidents in the Holt and Chesterton waves of protest. The minor series of protests commencing at Mile End Heath have been included.

TABLE 3

Collective Protests in 1831

	Market Day and Day After	Other Days of Week
Observed	7	11
Expected	7.43	10.57

$\chi^2 = 0.042$ d.f. = 1 $\alpha = 0.1$

$0.9 > p > 0.8$

Therefore $p > \alpha$

Therefore $\chi^2 = 0.042$ is not significant at the 10% level

DIFFUSION BETWEEN REGIONS

East Kent was taken as the source of the protests and the first collective protests in each region of the rest of England were taken as indicators of the spread of the revolt between regions. These include the collective protests shown on figures 11, 18 and 23 with the addition of the protests at Bere Regis, Heythrop, Sheering, Shingay, Stotfold and Woking, all of which were either sufficiently ahead of or spatially isolated from the main waves of protest to merit attention.

TABLE 4

The Diffusion of the Protests Between Regions : the Market Model

	Market Day and Day After	Other Days of Week
Observed	21	33
Expected	19.78	34.22

$\chi^2 = 0.079$ d.f. = 1 $\alpha = 0.1$

$0.8 > p > 0.7$

Therefore $p > \alpha$

Therefore $\chi^2 = 0.079$ is not significant at 10% level

APPENDIX TWO : REGRESSION ANALYSIS

THE REGRESSION MODEL

A regression analysis was performed for each area with the timing of each protest being dependent on the distance of each protest from the first collective riot in the region. Distance was measured along the road network centred on the London highway. The exception to this was in the Holt series of protests, where the rioting spread *across* the cross-country road networks. Here straight-line distance from Holt was used as the distance variable. If a protest occurred off the road, then the measure was taken perpendicular to the nearest highway. Where a location can be reached by more than one route through the road network the shortest-path distance was taken. If the location of a protest was given as 'near -' then it was assumed that it was 1 kilometre from the named place.

The dependent variable, time, was measured on an interval scale such that the time of the first protest, 28 August, at Lower Hadres, was set equal to 1. It should be noted that this variable measures the time at which the protestors took action rather than the time when the decision to protest was taken. Moreover it was assumed that each riot took place at mid-day. The basic regression model for each region was

$$Y_i = a + bX_i + e_i$$

where Y_i = the time of the protest at location i

X_i = the distance from location i to the first collective protest in the region and

e_i = the error term

As the b coefficient of the regression model was expressed in days per mile, the analysis was also carried out with distance as the dependent variable and time as the independent variable in order to obtain b coefficients expressed in miles per day, that is the rate of spread of the waves of rioting through the road network of each region.

SELECTION OF OBSERVATIONS

As Fisher has pointed out:

> Far from it being incumbent upon us to accept all observations sent us by Nature we must be highly selective about our observations if we want our results to have any ... meaning at all.[170]

Acceptance of all observations, however extreme their values may be, leads to the deliberate retention of a bias of unknown extent in the results. Yet we pay a price if we discard any observations because then the meaning of the confidence intervals becomes unclear. There is no solution to the problem except'... to present the arguments for discarding observations in such a manner as to allow their evaluation by

others.'[171] This will be the course adopted here.

First, in the regression analysis only collective acts of protest have been considered. This was because models of social protest refer specifically to the decisions of groups of men to take collective action. Arson and the sending of threatening letters could easily be the work of one man. Secondly, when the collective action of the labourers lasts more than one day in a community or recurs within two days of the first protest, the first day of protest has been taken as the date of the riot. Where, however, a wave of protest sweeps twice through a region, as in the case of the Brede series of disturbances, then these recurrences at the same location have been included. Thirdly, all but the first incidents in a series of disturbances have been excluded where it is known that a band of men have moved through the countryside protesting at villages along the way.

Fourthly, waves of protest have been identified as series of disturbances where contiguous incidents in space were not separated in time by more than three full days. This is perhaps a somewhat arbitrary procedure but it does appear to identify clusters of protests as a wave. It also avoids the statistical trap of extreme data points dominating the estimation of a regression line. If Fisher's advice had been followed it would have been necessary to provide *a priori* information before rejecting any extreme observations. However, in the context of our particular problem, social protest amongst agricultural labourers, this is almost impossible to do.[172] Similarly, I have excluded incidents that were spatially isolated from other series of protests, for example, Woking on 19th November (Fig. 13).

Fifthly, individual waves of protest were not mutually exclusive and so in certain areas the occurrence of disturbances appears to be related to two series of rioting. In these cases I have included the 'overlaps' in both regression analyses. Finally only samples of more than 14 observations have been considered sufficiently large for the results to be meaningful.

LIST OF PROTESTS INCLUDED IN REGRESSION ANALYSIS

Bognor series of protests

From the source of the outbreak of protests in this region the villages of Bersted, Bognor, Felpham and Yapton, there were two series of protests (Fig. 13). Thus the former villages are included in both series.

Bognor East (Bognor - Arundel - Chichester - Portsmouth - London roads)

Bersted	Emsworth	Liss
Bognor	Felpham	Rogate
Buriton	Fishbourne	Steep
Chichester	Funtington	West Marden
Chithurst	Goodwood	Yapton
East Harting	Liphook	

Bognor West (Bognor - Arundel - London road)

Arundel	Dorking	Pulborough
Bersted	Felpham	Steyning
Billinghurst	Horsham	Walton
Bognor	Lancing	Wisborough Green
Bolney	Ockley	Worthing (near)
Brighton	Pagham	Wotton
Cowfold	Poynings	Yapton

Brede series of protests

This comprised two interlocked waves of disturbances: a series from Brede to Harlow and then a series spreading out from Hadlow (Figs. 8 and 9). Distances were thus measured for incidents in the first series from Brede and for the second series from Brede *via* Hadlow. This also meant that certain settlements had two protests. These are marked with an asterisk (*)

Alland Court	Cowfold	Hawkhurst*	Margate
Barcombe	Cranbrook	Headcorn	Margate (near)
Battle*	Crowborough	Hellingly	Mayfield*
Benenden*	Crowhurst	Herne	Nettlestead
Bolney	East Peckham	Hertsmonceaux	Newenden
Brede	Fairlight	Hurst Green	Northiam
Brighton	Frant	Lamberhurst	Poynings
Buxted	Goudhurst*	Lancing	Ringmer
Chart	Hadlow	Lewes	Robertsbridge
Cooksbridge	Hailsham	Lydd	Rolvenden*

Rotherfield	Steyning	Warbleton	Yalding
Salehurst	Ticehurst	West Peckham	
Sedlescombe	Uckfield	Withyam	
Sevenoaks (near)	Wadhurst	Worthing (near)	

Crowmarsh Gifford series of protests

Both disturbances at Heythrop are included. Although the first protest on 22 November occurs far ahead of the main wave of protests, there is no *a priori* information for excluding it. The second disturbance on 26 November appears not to be simply an extension of the activities of 22 November and fits the spread of the rioting into the area and so it has been included.

Appleford	Clifton Hampden	Fairford	Rofford
Aston Tirrold	Coln St. Aldwyns	Heythrop	Stanford in the Vale
Aston Upthorpe	Coln St. Rogers	Langford	Upton
Baulking	Crowmarsh Gifford	Middle Barton	Wantage
Bibury	East Hagbourne	Milton	Watton
Broadwell	Eastleach Martin	Poulton	
Burcot	Eastleach Turville	Quenington	

Holt series of protests

Beeston	Holt	Whitwell
Briston	Kerdiston	
Cawston	Lyng	
Cotton	Melton Constable	
Field Dalling	Reepham	
Foulsham	Taverham	
Hindolveston	Themelsthorpe	

Micheldever series of protests

Alresford	East Wellow	Micheldever
Basingstoke	Exbury	Michelmersh
Bighton	Fawley	Monk Sherborne
Cliddesden	Itchen Abbas	Mottisfont
Down Grange	Littleton	Newport
Durley	Lymington	Owlsebury
East Stratton	Martyr Worthy	Pamber

Redbridge	South Stoneham	Whiteparish
Ringwood	Upham	Wootton St. Lawrence
Romsey	West Dean	
Sherfield	West Wellow	

Overton series of protests

Both incidents at Bere Regis are included, that on 22 and and that on 26 November, for reasons exactly comparable to those used above for the inclusion of both disturbances at Heythrop in the Crowmarsh Gifford series of rioting.

Alderbury	East Wellow	Salisbury
Allington	Ebbesbourne	Sixpenny Handley
Alton Priors	Enford	Standlynch
Andover	Figheldean	Stanton St.Bernard
Ashmansworth	Fordingbridge	Stockbridge
Barford St.Martin	Fugglestone St.Peter	Tidcombe
Barton Stacey	Hindon	Tollard Royal
Bere Regis	Hippenscombe	Thruxton
Boveridge	Houghton	Vernham Dean
Boyton	Idmiston	Wallops
Brewham	Kimpton	Wareham
Broad Chalke	Knighton	West Grimstead
Broughton	Leckford	West Harnham
Burbage	Lytchett	West Lulworth
Burcombe	Milton	West Wellow
Buttermere	Netheravon	Weyhill
Castle Hill	Newton Stacey	Wilton(Vale of Pewsey)
Chirton	Newton Toney	Wilton (Nr.Salisbury)
Collingbourne Ducis	Odstock	Winfrith
Collingbourne Kingston	Overton	Winterbourne Kingston
Cranborne	Penton Grafton	Winterbourne Stoke
Crawley	Pewsey	Wolland
Damerham	Puddletown	Woodborough
Dinton	Quarley	Wool
Downton	Ringwood	
Easton	Rockbourne	

Thatcham series of protests

This comprised an initial minor wave of disturbances out from Thatcham eastwards (Fig. 14) and a major wave of rioting from Woolhampton (Fig. 14 inset). Distances were thus measured for the minor wave from Thatcham and for the major wave from Thatcham via Woolhampton.

Aldbourne
All Cannings
Alton Priors
Baulking
Beverstone
Bibury
Binfield
Bishops Canning
Bradfield
Broadwell
Burbage
Buttermere
Chilton Foliat
Chirton
Coln Rogers
Coln St. Aldwyns
Cricklade
Eastleach Martin
Eastleach Turville
Easton Royal
East Woodhay
Enborn
Fairford
Froxfield
Fyfield
Great Bedwyn
Ham
Hannington
Highworth
Holyport
Horsley
Hungerford
Kintbury
Lambourne
Langford
Latton
Liddington
Long Newnton
Lyneham
Mildenhall
Milton
Ogbourne St.Andrew
Pewsey
Poulton
Quenington
Ramsbury
Rockley
Shalbourne
South Savernake
Speen
Stanton Fitzwarren
Stanton St.Bernard
Tetbury
Thatcham
Tidcombe
Waltham St.Lawrence
Wanborough
Wilcot
Wilton
Wingfield
Winsley
Woodborough
Woolhampton
Wootton Rivers
Wroughton
Yattendon

APPENDIX THREE : THE ANALYSIS OF THE OBSERVED AND EXPECTED SPATIAL DISTRIBUTIONS OF THE PROTESTS

To gain some measure of how closely the protests were related to the London highway and how the relationships varied over the course of the revolt, the observed frequency of incidents within 1 mile (1.61 km.) of a London highway was matched against an expected frequency based on the proportion of a region's area within 1 mile of a London highway. Here, because of the very small number of collective protests at certain critical periods, all incidents, both collective protests and occurrences of arson and of threatening letters, have been included. The analysis was performed using either one-sample chi-square tests or binomial tests depending on either the number in sample or the expected frequencies.

In most cases the regionalization of the protests adopted is self-evident (Fig. 27). Where a series of protests only spread into a small portion of a neighbouring county, however, those disturbances in the latter county have been grouped with the main body of protests. The expected frequency has then been calculated from the counties where the main body of protests occurred. For example, the small number of incidents in Surrey in the period from 4 to 22 November are included with the Kent and Sussex protests and the expected frequency is that for Kent and Sussex. A similar situation arises with the protests in south Cambridgeshire in the period 4 - 13 December. These have been included with the Essex grouping of incidents. In the case of the incidents around Banbury, which in the main occurred in Oxfordshire, these have been grouped with the Buckinghamshire series of incidents because they appear to be part of that wave of protests that commenced in that county on 26 November. In the case of north Essex, the two distinctive clusters of disturbances, one in the north west part of the county and the other in the north east, have been combined with the respective series of protests in Cambridgeshire and Suffolk.

As regards the calculation of the area within 1 mile of a London highway, this has nearly always been calculated for the whole county. In the peculiar circumstances of East Anglia, however, it was more meaningful to employ only portions of the counties concerned. Thus we measured the area within 1 mile of a highway for north Norfolk, the region to the north of a line from Yarmouth to Wisbeach, that of south Norfolk. In the case of Essex, only a figure for the northern part of the county was estimated, as the southern half of the county was hardly touched by the revolt and yet had a much greater density of London highways.

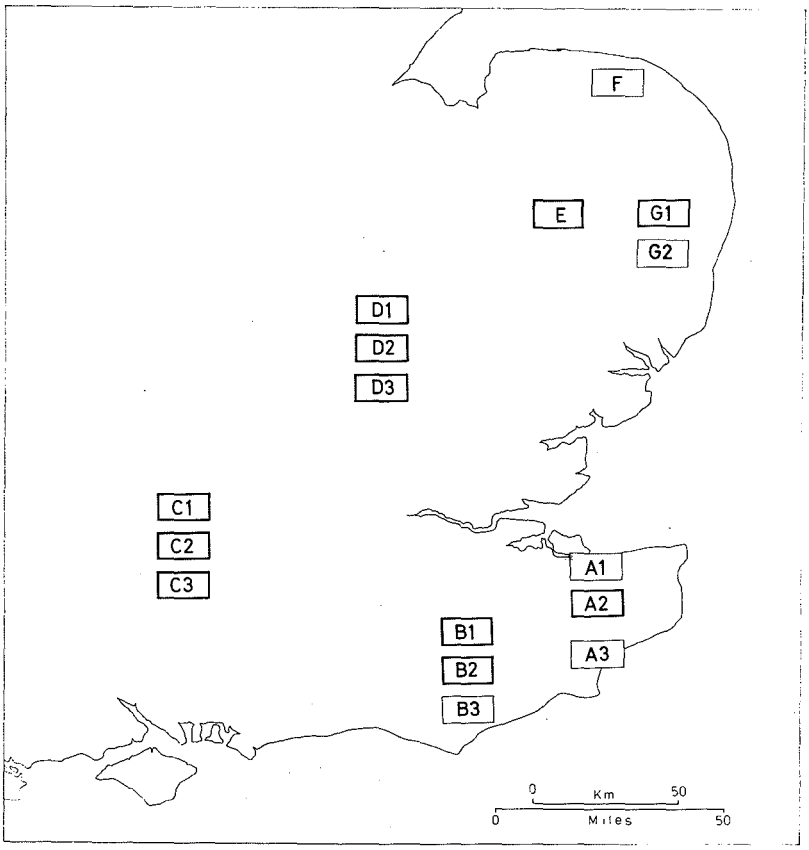


Figure 27. Key to regionalization of the protests

A : Kent

B : Kent, east Sussex and Surrey

C : Berkshire, Dorset, Hampshire, Oxfordshire, west Sussex and Wiltshire

D : Buckinghamshire, Cambridgeshire, Huntingdonshire, Northamptonshire and north Essex

E : Norfolk, north Essex and Suffolk

F : North Norfolk

G : North Essex, south Norfolk and Suffolk

THE RESULTS OF THE ANALYSIS

Binomial tests are indicated by an asterisk (*); all other cases are one sample chi-square tests. The significance level is 0.1 for all the tests. For the one-sample chi-square tests, the critical value is always 2.71 for a significance level of 0.1 (10%).

A1* Incidents

Within 1 mile of London Highway (W)	Over 1 mile from London Highway (O)	Total Number of Incidents
3	7	10

$p = 0.38$ $p > \alpha$

Therefore the difference is not statistically significant at the 10% level.

A2	W	O	Total
Observed	27	11	38
Expected	15.01	22.99	38

$\chi^2 = 14.83$

Therefore the difference is significant at the 10% level

A3*	W	O	Total
	5	3	8

$p = 0.17$ $p > \alpha$

Therefore the difference is not statistically significant at the 10% level.

B1	W	O	Total
Observed	40	42	82
Expected	32.39	49.61	82

$\chi^2 = 2.96$

Therefore the difference is significant at the 10% level.

B2	W	O	Total
Observed	17	8	25
Expected	9.88	15.12	25

$\chi^2 = 8.5$

Therefore the difference is significant at the 10% level.

B3	W	O	Total
	4	5	9

$p = 0.74$ $p > \alpha$

Therefore the difference is not statistically significant at the 10% level.

C1	W	O	Total
Observed	17	6	23
Expected	6.88	16.12	23

$\chi^2 = 21.3$

Therefore the difference is statistically significant at the 10% level.

C2	W	O	Total
Observed	118	192	310
Expected	93.7	216.3	310

$\chi^2 = 9.03$

Therefore the difference is statistically significant at the 10% level.

C3	W	O	Total
Observed	11	9	20
Expected	6.04	13.96	20

$\chi^2 = 5.83$

Therefore the difference is statistically significant at the 10% level.

D1	W	O	Total
Observed	11	3	14
Expected	5.18	8.82	14

$\chi^2 = 10.38$

Therefore the difference is statistically significant at the 10% level.

D2	W	O	Total
Observed	37	35	72
Expected	26.6	45.4	72

$\chi^2 = 6.49$

Therefore the difference is statistically significant at the 10% level.

D3*	W	O	Total
	9	3	12

$p = 0.009$ $p < \alpha$

Therefore the difference is statistically significant at the 10% level.

E*	W	O	Total
	3	1	4

$p = 0.05$ $p < \alpha$

Therefore the difference is statistically significant at the 10% level.

F*	W	O	Total
	4	40	44

$p = 0.91$ $p > \alpha$

Therefore the difference is not statistically significant at the 10% level.

G1	W	O	Total
Observed	20	24	44
Expected	14.37	29.63	44

$\chi^2 = 3.26$

Therefore the difference is statistically significant at the 10% level.

G2*	W	O	Total
	4	8	11

$p = 0.72$ $p > \alpha$

Therefore the difference is not statistically significant at the 10% level.

North Norfolk : cross-country routeways

	Within 1 mile of a cross-country routeway	Over 1 mile from a cross-country routeway	Total
Observed	18	26	44
Expected	13.5	30.5	44

$\chi^2 = 2.15$

Therefore the difference is not statistically significant at the 10% level

APPENDIX FOUR : TARGETS OF THE CROWD

A three sample chi-square analysis was undertaken to establish that attacks on parsons and on the gentry and aristocracy were more likely to be found on the London highway than other types of riot. The typology of protests found in Hobsbawm and Rudé's collation of the riots (Appendix III) was employed. Lincolnshire was therefore excluded from the analysis.

Observed

	Within 1 mile of the London highway	Over 1 mile from the London highway	Total
Parsons	43	33	76
Gentry and Aristocracy	33	16	49
Others	194	352	546
Total	270	401	671

Expected	Within 1 mile of the London highway	Over 1 mile from the London highway	Total
Parsons	30.58	45.42	76
Gentry and Aristocracy	19.7	29.3	49
Others	219.7	326.3	546
Total	270	401	671

Difference Table

	Within 1 mile of the London highway	Over 1 mile from the London highway
Parsons	+ 12.42	- 12.42
Gentry and Aristocracy	+ 13.3	- 13.3
Others	- 25.7	+ 25.7

$\chi^2 = 28.5$ df = 2 $\alpha = 0.1$

$p < 0.001$

Therefore $p < \alpha$

Therefore $\chi^2 = 28.5$ is significant at the 10% level

NOTES

1 E.J. Hobsbawm and G. Rudé, *Captain Swing* (London 1969; rev. ed. 1973) 159. All page references will be from the revised edition.

2 *ibid.* xxii.

3 *ibid.* 159.

4 *ibid.* chapter 3 especially. See also P. Horn *Labouring life in the Victorian countryside* (Dublin 1976).

5 See, for example, A. Constant, The geographical background of inter-village population movements in Northamptonshire and Huntingdonshire *Geography* 33 (1948) 78-88 and P.J. Perry, Working class isolation and mobility in rural Dorset, 1837-1936: a study of marriage distances *Transactions of the Institute of British Geographers* 46 (1969) 121-141.

6 Hobsbawm and Rudé *op. cit.* 76.

7 See, for example, G. Lefebvre, *Les paysans du Nord pendant la Revolution francaise* (Bari, 1959); C. Tilly, *The Vendee* (Cambridge, Massachusetts 1964); A. Everitt, The wayfaring community, pp. 38 - 43 of A. Everitt, *Change in the provinces* (Leicester, 1969); J. Bohstedt, *Riots in England: 1790 - 1810 with special reference to Devonshire* (unpub. Ph. D. thesis Harvard University 1972). The phrase 'link men', Professor Godechot's 'hommes de liaison', is used by Professor Cobb in R.C. Cobb, *A second identity* (London 1969) 118.

8 See R. Abler, J.S. Adams and P. Gould, *Spatial organization: the geographer's view of the world* (London 1972) chapter 11.

9 T. de Quincey, *The English mail-coach* (London, 1961) 2.

10 H.O. 52/7 (letter of 28 November 1830).

11 G. Rudé, *The crowd in history* (New York 1964) chapter 1.

12 The best synthesis of much of the material is R. Price, Introduction, pp. 1 - 72 of R. Price (ed.), *Revolution and reaction: 1848 and the Second French Republic* (London 1975).

13 R. Hilton, *Bond men made free : medieval peasant movements and the English rising of 1381* (London, 1977) 160.

14 M. Dutt, *The agricultural labourers' revolt of 1830 in Kent, Surrey and Sussex* (Unpubl. Ph.D. thesis, Univ. of London 1966) note 361.

15 Hobsbawm and Rudé *op. cit.* chapters 5 - 8.

16 For example, the incidents along the London-Marlborough-Bath road, which were all related, are split between chapters 6 and 7 cf. Fig. 14.

17 'It [the rioting] swung to and fro across the county boundary, sometimes appearing in one county, sometimes in the other: but it would seem to have had its starting-point in Sussex rather than Kent' *ibid.* 79. They are describing the events in Kent and Sussex from 4 November onwards cf. Figs. 8 and 9.

18 ' ... the movement swung back from east to west across the centre of the county' *ibid.* 75. They are describing the events of early to mid October in Kent cf. Fig. 5.

19 Rudé *op. cit.* 152.

20 The date, location, and type of the protests are derived from Appendix III of Hobsbawm and Rudé *op. cit.* This has been amended by additions and corrections found in the text of their book. Excluded are a number of industrial and political incidents in northern England that appear to be unconnected with the Swing revolt. On the other hand, the information for Lincolnshire, which Hobsbawm and Rudé admit is incomplete has been supplemented from the *Stamford Mercury* November 1830 - March 1831, whilst that for Wales has been supplemented from *The Cambrian* December 1830 - March 1831 and from H.O. 52/9 and H.O. 41/8-9.

21 Information on the stage-coach network was taken from Pigot and Co.'s *National commerical directory for 1828, 1830 and 1832* (London, 1828, 1830 and 1832).

22 The classification of settlements as towns is that used by B.T. Robson in his book *Urban growth : an approach* (Cambridge 1973). I would like to thank Professor Robson for making the data available to me.

23 A. Charlesworth, *Captain Swing : the spatial viewpoint of an historical event* (unpubl. M.S. thesis, Pennslyvania State University 1974).

24 Hobsbawm and Rudé *op. cit.* 159.

25 G. Lefebvre, *The Great Fear of 1789 : rural panic in revolutionary France* (translated by Joan White, London 1973) 155.

26 Many letters to the Home Officer either noted this or asked that restrictions by placed on travellers moving through the countryside, e.g. H.O. 50/8 (letter of 23 October 1830; letter of 11 November 1830; letter of 19 November 1830).

27 The concept of diffusion as a battle rather than a simple act of communication has tended to be overlooked in the geographical literature. But see D.A. Schon *Beyond the stable state* (New York 1971). Moreover many geographical descriptions of diffusion patterns are ahistorical in that they ignore the particular societal context in which the diffusion is occurring. The present author's earlier attempt at describing the Swing revolt could be criticised on those grounds. See Charlesworth *op. cit.*

28 I have ordered the maps describing the history of the revolt in as correct a time sequence as possible. This should enable the reader to follow the progress of the rioting particularly when they are used in conjunction with Hobsbawm and Rudé's text. It should be noted that in order to identify clearly separate series of rioting it has been necessary to allow the time sequence of certain maps to overlap.

29 In the time-series plot, where the records indicate a specified period in which protests occurred rather than giving an exact date for each occurrence I have randomly spaced the protests within that period.

30 A comparable event was the increased attacks on the enclosed portions of Otmoor in August 1830 after the acquittal of men who had attacked embankments on the river Ray. See B. Reaney, *The class struggle in 19th century Oxfordshire : the social and communal background to the Otmoor disturbances of 1830 to 1835* History Workshop Pamphlets 3 (Oxford 1970) 32.

31 H.O. 40/27 fo. 2 (letter of 12 November 1830).

32 M. Brook *The Great Reform Act* (London 1973) 123.

33 quoted in *ibid.* 124

34 *ibid.* 123.

35 E. Halevy, *A history of the English people in the nineteenth century III : the triumph of Reform (1830 - 1841)*(London 1961). 9.

36 H.O. 52/8 (letter of 22 November 1830).

37 Hobsbawm and Rudé, *op. cit.* 215. A similar conclusion is reached by William Langer in his study of the revolutions of 1848 (noted in C. Tilly, 'The changing place of collective violence', pp 139-164 of M. Richter (ed.). *Essays in theory and history* (Cambridge Massachusetts 1970) 162).

38 Joseph Carter, a Hampshire labourer of Sutton Scotney who took part in the disturbances, related to Alexander Somerville how the coach came by while the protestors were up on the London Road. A. Somerville, *The whistler at the plough* (Manchester, 1852) 263.

39 As Charles Tilly has shown on a number of occasions, collective violence is the outcome of *both* collective action and repression. See C. Tilly, L. Tilly and R. Tilly *The rebellious century 1830 - 1930* (London, 1975).

40 Hobsbawm and Rudé *op. cit.* 215.

41 *ibid.* 224.

42 *ibid.* Appendix II. It is worthwhile mentioning that though one can trace regional differences in sentences, there were no similar variations in acquittals.

43 Hobsbawm and Rudé *op. cit.* 219.

44 For example, H.O. 40/27 fo. 5 (letter of 29 November 1830) and H.O. 52/8 (letter of 28 November 1830). See also E. Richards, Captain Swing in the West Midlands *International Review of Social History* 19 (1974) 86 - 99.

45 *ibid.*

46 For example, H.O. 40/27 fo. 5 (letters 4, 8 and 12 December 1830); H.O. 40/27 fo. 3 (letter of 14 December 1830).

47 Hobsbawm and Rudé *op. cit.* 119 - 120.

48 *ibid.* 115.

49 Reaney *op. cit.* 42. Reaney's chapter on the resistance movement 1830 - 1835 is a careful documentation of the authorities' actions to control the Otmoor area by the permanent stationing either of troops, the yeomanry or the police (*ibid.* 46 - 60).

50 The North Walsham proclamation is reproduced in full in Hobsbawm and Rudé *op. cit.* 125. The Melton and Holt proclamations are in H.O. 52/9.

51 *ibid.* 126.

52 For the 1816 protests see A.J. Peacock *Bread or blood : the agrarian riots in East Anglia in 1816* (London, 1965); for the 1822 protests see Hobsbawm and Rudé *op. cit.* 60 - 61.

53 Hobsbawm and Rudé *op. cit.* 124.

54 Colonel Brotherton was recalled from west Wiltshire once order had been restored there to deal with the threat of outbreaks of protest in south Suffolk (H.O. 40/27 fo. 3, letters of 30 November and 13 December 1830). Hobsbawm and Rudé appear to have the timing of his stationing in the two regions incorrect (*ibid.* 219).

55 For a discussion of the importance of past repression in restraining a community from protesting see J.C. Scott. *The moral economy of the peasant : rebellion and subsistence in south east Asia* (London, 1976) chapter 7.

56 Hobsbawm and Rudé *op. cit.* chapter 9.

57 For example, from Hereford, Captain Havenden stressed that he had explained to local officials the necessity for a constabulary force in that area (H.O. 40/27 fo. 3, letter of 14 December 1830).

58 Comment by Deutsch in discussion of the role of cities in social unrest in A. de Reuck and J. Knight (eds). *Conflict in society* (London 1966) 169. John Bohstedt has made a similar point on the spread of food rioting in Devon between 1790 and 1810 (personal communication to the author).

59 The only exceptions to that general statement were in East Anglia: the waves of protest commencing at Holt on 20 November and at Chesterton on 4 December. These are more properly considered in the next section.

60 Information on market days is taken from Pigot and Co. *op. cit.*

61 The detailed results are given in Appendix 1.

62 The procedural details of the regression analysis are given in Appendix 2.

63 The results of the chi-square analysis are presented in Appendix 1.

64 These criticisms and the alternative argument that is proposed below are drawn in particular from: R. Price, 'Introduction' *op. cit.*; E. Shorter and C. Tilly, *Strikes in France 1830 - 1968* (London 1974); E.P. Thompson, *The making of the English working class* (London rev. ed. 1968); E.P. Thompson, Rural riots *New Society* 13 February 1969 251 - 252; C. Tilly, L. Tilly and R. Tilly, *op. cit.*

65 R.F. Hamilton lists many political theorists and researchers who have criticised the hardship model. See R.F. Hamilton, *Affluence and the French worker in the Fourth Republic* (Princeton 1967) note 282. For a critique of hardship theories applied to food rioting see J. Bohstedt *op. cit.*; E.P. Thompson, The moral economy of the English crowd in the eighteenth century *Past and Present* 50 (1971) 76 - 136; D.E. Williams, Were 'hunger' rioters really hungry? Some demographic evidence *Past and Present* 71 (1976) 70-75. Similarly for ghetto rioting in the U.S.A. see J.R. Feagin and H. Hahn *Ghetto revolts: the politics of violence in American cities* (New York 1973).

66 Thompson, 'Moral economy' *op. cit.* 77.

67 Quoted in Dutt *op. cit.* 155 - 156.

68 Quoted in Reaney *op. cit.* 45.

69 Quoted in Hobsbawm and Rudé *op. cit.* 77.

70 P. Hollis, *The pauper press: a study in working-class radicalism of the 1830s* (London 1970) 40.

71 Quoted in Thompson 'The making' *op. cit.* 203.

72 P.P. Reports of the Commissioners of Poor Laws, 1834 (9), XXVII Appendices vol. B. 5 (question 53).

73 Hobsbawm and Rudé *op. cit.* note 64 - 65.

74 I owe this point to the late Mr. Frank Walker. See also *ibid.* 38 and 40 for discussion contradictory to their dismissal of the role of the beershops noted in the previous note.

75 *ibid.* 40; Dutt *op. cit.* 105.

76 P.P. 'Poor Laws' *op. cit.* Appendices, vol. B.5 (question 53) (Sussex: Linfield).

77 *ibid.* (Sussex: Isfield).

78 *ibid.* (Sussex: Ticehurst).

79 *ibid.* (Kent: Wrotham); Hollis *op. cit.* 41.

80 P.P. 'Poor Laws' *op. cit.* Appendices, vol. B.5 (question 53) (Sussex: Brede, Slaugham); *ibid.*(Berkshire: Bradfield).

81 The account that follows is taken from A. Somerville *op. cit.* 261 - 265; J.L. Hammond and B. Hammond, *The village labourer* (London 1911) chapter 11; A.M. Colson's *The revolt of the Hampshire agricultural labourers and its causes 1812-31* (unpubl. M.A. thesis, Univ. of London 1937); Hobsbawm and Rudé *op. cit.;* Cobbett's *Political Register* 1832.

82 A. Somerville *op. cit.* 262 - 263.

83 Samuel noted the link between the Swing disturbances, industrial disturbances in the north of England and the Reform agitation. See R. Samuel, Foreword, pp. I - V of Reaney *op. cit.* There is a need for a social history of the period, 1830 - 32, comparable, say, to Price's social history of the Second French Republic. See R. Price, *The Second French Republic: a social history* (London 1972).

84 Hobsbawm and Rudé *op. cit.* 66.

85 *ibid.* 80.

86 The handbill 'Liberty or death' quoted in full by Butler, J.R.M. Butler, *The passing of the great Reform Bill* (London 1914) 101.

87 Hobsbawm and Rudé *op. cit.* 176.

88 For the degree of crisis, alarm and panic caused by the announcement of the cancellation see Butler *op. cit.* 102 - 103.

89 Hobsbawm and Rudé *op. cit.* 142.

90 *ibid.* 157.

91 Price 'Introduction' *op. cit.*

92 Hobsbawm and Rudé *op. cit.* 158.

93 *ibid.* 208.

94 R. Williams, *The country and the city* (London Paladin ed. 1975). 223 - 224.

95 Thompson 'The making' *op. cit.* 806.

96 Carlile's *Prompter* December 18 1830.

97 Quoted in J. Sambrook *William Cobbett* (London 1973) 174.

98 See, for example, A. Everitt, The English urban inn 1566 - 1760, pp 91 - 137 of A. Everitt (ed.) *Perspectives in English urban history* (London 1973).

99 *ibid.*

100 Hobsbawm and Rudé *op. cit.* 205.

101 *ibid.* 206 - 207; Colson *op. cit.* 314 - 336.

102 See note 7 for references to the role of link men.

103 Price 'Introduction' *op. cit.*

104 See P. Hollis, *op. cit.* 108 - 116.

105 *ibid.* map facing 336.

106 *ibid.* 109.

107 Bullington was just over 1 mile (1.61 km.) from Sutton Scotney on the London highway. Micheldever was just under 1 mile (1.61 km.) from the London highway.

108 Carlile had tried to argue at his trial that it was impossible for his writings to reach labourers in Kent and Suffolk. Historians seem to have taken this at its face value, ignoring the fact that 400 were sold over the counter in London with an additional 150 to metropolitan dealers, Hollis *op. cit.* 39 and 120.

109 Hobsbawm and Rudé *op. cit.* 256.

110 A. Somerville *op. cit.* 118.

111 Letter from James Frampton to Lord Melbourne 5 March 1834. Quoted in W. Citrine (ed.) *The book of the martyrs of Tolpuddle* (London 1934) 176.

112 K. Marx and F. Engels, The communist manifesto pp 46 - 66 of C. Wright Mills, *The marxists* (London 1963) 55.

113 Quoted in P. Hollis *op. cit.* 290.

114 Foster notes the importance of contact with London for local radicals. See J. Foster, *Class struggle and the Industrial Revolution: early industrial capitalism in three English towns* (London University Paperback ed. 1977) 2. The role of link men in popular movements is also stressed in J. Chesnaux *Peasant revolts in China 1840 - 1949* (London 1973) and F. Furedi, The social composition of the Mau Mau movement in the White Highlands *Journal of Peasant Studies* 1 (1974) 486 - 505.

115 For details of the results see Appendix 3.

116 Hobsbawm and Rudé *op. cit.* 73.

117 *ibid.* 72.

118 Dutt *op. cit.* 353 - 355.

119 Hobsbawm and Rudé *op. cit.* 76 and Appendix III, 2.

120 For details of the analysis see Appendix 3.

121 C.B. Jewson, *The Jacobin City* (London 1975) 39 *et passim.*

122 Thompson, 'The making' *op. cit.* 121 ff.

123 Hobsbawm and Rudé *op. cit.* 124.

124 The analysis is presented in Appendix 4.

125 P.P. 'Poor Laws' *op. cit.* Appendices, vol. B. 5(question 53) Sussex.

126 In a modern example, Sharp related the diffusion of the 1970 postal strikes in the U.S.A. in part to the spatial variations in worker militancy. V.L. Sharp, The 1970 postal strikes: the behavioral element in spatial diffusion pp. 523 - 532 of M. Albaum (ed.) *Geography and contemporary issues: studies of relevant problems* (New York 1973).

127 A. Etzioni, *The active society: a theory of societal and political processes* (New York 1968) 405.

128 The data on the number of craftsmen involved is given in Hobsbawm and Rudé *op. cit.* 207. It should be noted that the degree of involvement is based on the varying numbers of craftsmen arrested and so the figures should be treated with caution. The coefficient of +0.68 was significant at the 10% level (n = 12).

129 Only the food riots of 1766, 1795 and 1800 - 1801 are perhaps comparable events before 1830. As Wells has emphasised, however, food riots were not rural riots (R. Wells, The revolt of the south-west 1800 - 1801: a study in English popular protest *Social History* 6 (1977) 740). Moreover the spread of food rioting was not only shaped by contact along transport and institutional networks but also by the diffusion of market pressure and prices (Bohstedt *op. cit.* 177, 184 and Dr. J. Stevenson, personal communication to the author). The latter complicating factor is absent in protests over wages, machinery, rents and land and so it is with these types of disturbance that comparisons will be made.

130 Threatening letter received at Whitney in Herefordshire on 17 November 1830 quoted in Hobsbawm and Rudé *op. cit.* 103. Similarly letter received at Hawkwell on 10 December 1830, *ibid.* 132.

131 Threatening letter received at Petworth and dated 12 November quoted in Dutt *op. cit.* 375.

132 Quoted in Hobsbawm and Rudé *op. cit.* 93.

133 Quoted in *ibid.* 181.

134 Thompson 'Rural' *op. cit.* 252. Ralph Samuel also describes the protests as a class rising (R. Samuel *op. cit.*).

135 A preliminary analysis was undertaken of the location and timing of the 1816 disturbances as recorded in Peacock *op. cit.*

136 A preliminary survey of the London stage-coach network was carried out based on Critchett and Wood, *The Post Office directory for 1816* (London 1816).

137 The collapse of the system is documented in amongst others: A. Greening, Nineteenth-century country carriers in North Wiltshire *Wiltshire Archaeological and Natural History Magazine* 66 (1971) 162 - 176; M. Blaxland, *The growth of public transport as related to the expansion of Brighton, Sussex 1800 - 1865* (unpubl. B.A. dissertation, Univ. of Liverpool, 1975); M.J. Freeman, The stage-coach system of South Hampshire, 1775-1851, *Journal of Historical Geography* 1 (1975) 259-81; P.J. Stiff, *Agricultural market changes and transport improvements in Oxfordshire 1700 - 1850* (unpubl. B.A. dissertation, Univ. of Liverpool, 1975).

138 The contrast between the two networks is demonstrated by Freeman for South Hampshire. See Freeman *op. cit.*

139 See J.P.D. Dunbabin *Rural discontent in nineteenth-century Britain* (London 1974) chapter 4.

140 See E. Richards, Patterns of Highland discontent 1790 - 1860 pp. 75 - 114 of R. Quinault and J. Stevenson (eds.) *Popular protest and public order* (London 1974).

141 See J. Hunter, *The making of the crofting community* (Edinburgh 1976) chapters 8 - 11.

142 See H.J. Hanham, The problem of Highland discontent 1800-1885 *Transactions of the Royal Historical Society* 5th series 19 (1969) 21 - 65.

143 See Hunter *op. cit.* chapter 6.

144 Shorter and Tilly *op. cit.* 345.

145 *ibid.*

146 E.P. Thompson makes a similar point regarding the Luddites, Thompson 'The making' *op. cit.* 630.

147 Dutt *op. cit.* 353.

148 Hobsbawm and Rudé *op. cit.* 176.

149 See also Richard Cobb's criticism of both 'the crude jumble sale of Soboul's "mouvement de masse" or Rudé's wearisomely repetitive Crowd.' He notes that Colin Lucas has suggested more sophisticated and more meaningful groupings based on connections from school days, shared leisure, family relationships, army experience and friendship. R.C. Cobb, *Reactions to the French Revolution* (London 1969) 121.

150 This is based on Joyce Marlow's book *The Tolpuddle Martyrs* (London 1971), Citrine *op. cit.* and B. Kerr, The Dorset agricultural labourer 1750 - 1850 *Proceedings of the Dorset Natural History and Archaeological Society* 84 (1962) 165 - 166.

151 It is unfortunate that the full list of membership is not extant.

152 Quoted in Hammond *op. cit.* 247.

153 Dutt *op. cit.* 105.

154 Hobsbawm and Rudé *op. cit.* note 64 - 65.

155 Reaney *op. cit.* in particular, 58 - 59.

156 R.H. Mason, *The history of Norfolk* (London 1884) 506.

157 Thompson 'The making' *op. cit.* 249.

158 Compare Table 1 with the histogram of marriage-distance relationships for the period 1837 - 1886 in Perry and with the results for the three valley parishes in Northamptonshire and Huntingdonshire 1745-1843 considered by Constant. Perry *op. cit.* 130, Constant *op. cit.* 78 - 88.

159 *ibid.*; Perry *op. cit*

160 H.O. 40/17 (letter from Rev. J. Surtees dated 6 March 1822).

161 See, for example, Hägerstrand's classic study on spatial diffusion of agricultural innovations in rural society. T. Hägerstrand, *Innovation diffusion as a spatial process*, (Chicago 1967).

162 See, for example, the maps in Constant *op. cit.*

163 Perry *op. cit.* 128 - 129 and note 15.

164 Both Bohstedt and Wells have noted the importance of more formalised networks of contact in the spread of food rioting between towns. Bohstedt singles out the Volunteers, the local auxiliary militia units, whilst Wells indicates 'the numerous associations of Woolcombers' and friendly societies, Bohstedt *op. cit.* 177 ff; Wells *op. cit.* 742 - 743.

165 Quoted in Hammond *op. cit.* 284.

166 *ibid.* 258.

167 P.P. 'Poor Laws' *op. cit.* Appendices, vol. B.5 (question 53) (Berkshire: East Hendred).

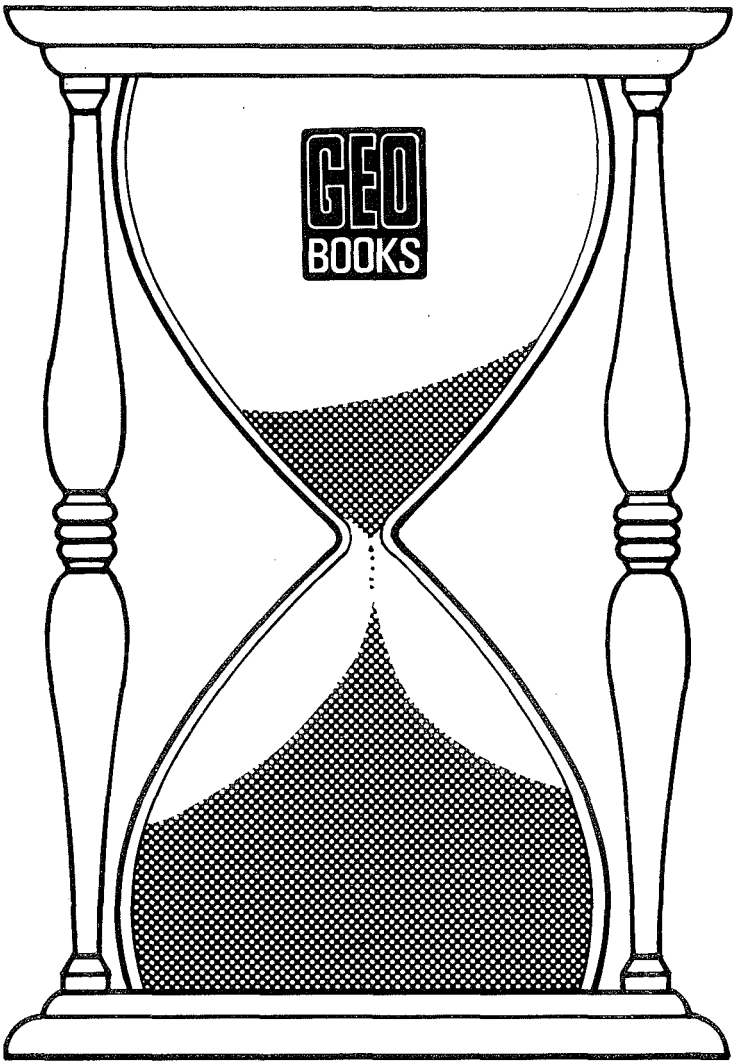
168 Bohstedt makes the same point. Bohstedt *op. cit.* 175.

169 Review of 'Captain Swing' *Times Literary Supplement* 3524 (11 September 1969) 989.

170 F.M. Fisher *A priori information and time-series analysis* (Amsterdam 1962) 6.

171 *ibid.* 8 - 9.

172 Tukey, however, provides support for the exclusion of extreme values per se. See J.W. Tukey, The future of data analysis, *Annals of Mathematical Statistics* 33 (1962) 1 - 67.



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