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# A Historical Study for the Paralleling and Contrasting of the Frequently Flooded Rural Society in Early Modern England and Japan: Willingham, Cambs., U.K. and Nakagohya, Nishi-Kanbara, Echigo, Japan

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## Introduction

This paper introduces a historical study for the paralleling and contrasting of the frequently flooded rural society in early modern England and Japan. This research group has been engaged in research on the two rural societies of England and Japan in the period of the formation of the market economy, in other words the 'early modern' period. I examine a village in Japan, Nakagohya, Nishi-kanbara, Niigata in the light of the experience of studying the fen-edged community of Willingham, Cambs., U. K. since the geographical settings are quite similar.

In this paper, I am concerned with the organisation of rural society and the change in the period in the way the market economy was organised. We also seek to examine the symbiotic relationship people in these societies had with the natural environment and combine this with a focus on the use of the cultivated fields and commons. Through examining the historical data on both English and Japanese villages, we have gradually realised that the form of the environmental symbiosis reveals another feature because extra-ordinary natural disasters can be studied as historical facts.

Until recently it has been assumed that people living in a village society in the early modern period lived a passive existence as part of nature, or alternatively, it has been thought that they led a rather more active existence in symbiosis with it. Whichever attitude was taken, for the most part the evolution of the market economy has been recognised as the destroyer of

the village community and the symbiotic relationship with the natural environment because of the increased polarisation that it brought about.

On the other hand, the natural disasters themselves had often been presented as extraordinary, one-off events or colourful historical tales. However, this approach has now been reconsidered and examined in various academic fields in Japan. It is certainly the case that many studies deal either with the natural environment or with the market economy, but there are few studies of the village history from both perspectives and integrating this with a consideration of the great natural disasters of the period. This does not seem to be so different in England. It is possible to point out that there have been a number of studies over the years including a series research papers on the history and geography of the fen drainages led by H. C. Darby and his colleagues. In addition to this work, the Cambridge Group for the study of the population and social structure and the researchers attached to this group have provided a wide range of further studies examining the demography and ecology. We should also mention the tradition of the regional history of the Leicester School which effectively created an entirely new type of study which brought together a study of the interaction between the environment, including its distinctive landscapes, and the societies living there. Moreover, when it comes to research into natural disasters, famine is one of the most important subjects for researchers such as A. Sen who studies the under-developing countries in connection with the discussions of what makes economies particularly vulnerable. However, in the context of the famine, there are only a handful of historical studies, which are engaged in looking into both the natural environment and the market economy in the regional economy, such as H.C. Darby and J. Lavensdale. For Japan, there could be a number of good potential source materials, but there has not been a monograph study of a regional economy.

Let us apply the viewpoint, which tended to be lacking from the data from the monographic studies in the past. During the development of the market economy it is certainly true that the village society often shows a certain communality, which helped to preserve the character of the regional society and the natural symbiotic control over the use of economic resources corresponding to the market economy. The response to the natural disasters such as famine and floods often took place in such historical and social contexts. Work in each research field has shown that social and economic organisations revealed their communality at the everyday level and there are common, or at least very similar, features which unite all the different activities carried out at times when natural disasters struck.

### **【Water Disasters】**

The scholars of social and economic history have discussed various aspects of such disasters in their own historical contexts, and there are not insignificant numbers of studies on individual cases. However, developments in the study of geography, river technology and the history of civil engineering necessitate taking a fresh look at the natural disasters previously studied from these new perspectives. Yet when we turn to the relationships between nature and human society, the modern viewpoint based on the presumptions of a mega-construction business, cannot adequately explain the early modern phenomena. In this particular area social and economic history has the advantage of shedding light on floods as natural phenomena.

- 1 floods as natural phenomena
  - points to consider
    - irrigation

- fertility
- \* particular valuation according to regions, nations and periods

## 2 floods as social phenomena

points to consider

- watertight/waterproof : regional way of attitudes
    - \*response to the flood at the level of the individuals and local societies
  - riparian work : governors' thinking
- \*minimising the damage to the wider geographical area

### 1 Communal Organizations in the English Fen-edge Area: Willingham Cambs.

Willingham, Cambs. is located about 9 miles northwest of Cambridge. The land is as low as 8 metres above sea level and is part of the fen-edge area. The Fenland, or the eastern great fen area, covers an area of 1300 square kilometres and extends from East Anglia to the eastern part of Yorkshire. The attempts to drain the whole area of the fens have been ongoing since the fifteenth century, but it was, in particular, the great flood, just after the nationwide famines, that really gave an impetus to the great drainage project. It was a decision that was taken by the landlords who owned the largest areas of land and by the contractors, supported throughout the seventeenth century by successive kings and by the Republican government.

The Fen-edge area is located between the corn-farming upland areas and the fenlands, and it has generated a unique social and economic life which can be seen as a sort of fusion of the two different areas with their distinct lifestyles. This unique life style established the so-called 'fen-edge system' (J. Ravensdale, p.83), based on the watery environments of this area in the sixteenth and seventeenth centuries.

Over this entire area, the lodes or waterways were developed, and the unique communication systems, including the boats, were established. The landscapes were maintained until the nineteenth century when the steam engine pumps were introduced (Ravendale, pp.25-32). The area boasted a rich variety of products thanks to the fen commons, including fish, poultry, willows, reeds and turf or peat. In addition, in the sixteenth century there were a number of dairy products on the market, which made the area more prosperous than previously. For this to happen the pre-condition was for there to be good pasture land on the fen commons.

At the end of the sixteenth century, a new landlord took over in Willingham. Sir Miles Sandys was a shrewd man with a secular approach to the world. He was heavily involved in the Great Drainage of the Fen, and as part of the project he took control of the estates in Willingham. As he lacked much understanding of the strong community spirit of the region, he almost inevitably invited the opposition of the local inhabitants.

#### 1-1 Floods as natural phenomena

If we look at floods as natural phenomena, the important point to note is that they improve the fertility of the soil. As the title of the book written by J. Lavendale, *Liable to Floods* (Cambridge, 1974), accurately describes, the flood was never desirable for the inhabitants, at least in the short term, but they realized that floods in winter guaranteed the increased fertility of the soil in summer. The irrigation methods they employed were in fact a small-scale local version of the system used in the lands around the river Nile.

Among several large size drainage projects undertaken in the second part of the sixteenth century and seventeenth centuries, the most famous one is the Bedford Level by the earl of Bedford. One of the ends is located in the river Ouse. It started from the northern edge

of the parish of Over, adjacent to the north-west end of Willingham, in an area called Crane's Fen in 1842 (which belonged to Little Shelfords in the sixteenth and seventeenth centuries). Therefore there are references to Willingham as well as Over in the record of the petition to the Bedford level Corporation, which had a Royal charter. A study of these documents show being flooded in winter was indispensable for improving the grass and developing the fertility of the cultivated soil (orders 45, 46, 109)

As the study of Breckland in late medieval East Anglia by M. Bailey reveals, the area experienced far greater and more diverse economic activities than might be thought at first sight, because of the various resources found there and the character of the market. In particular, the fen-edge area had seen the development of the lode networks as a water communications network connecting the upland areas as well as the fen and marshland areas (Bailey, pp.140, 147).

Moreover, fen commons in the fen-edge area seem to have been particularly suitable for dairy production, and in the early seventeenth century Over, a western parish adjacent to Willingham, was known for butter production (Fussell, pp.41, 208). In the petitions to Bedford Level Corporation the securing of good quality grass was considered. In the first half of the eighteenth century, Cottenham, a neighbouring parish to the east of Willingham, was well-known for Single Cottenham, a type of cheese. In Willingham, we have already found the chamber for the storage of cheese in a house built in the seventeenth century. Cottenham cheese was highly appreciated for its richness and could be favourably compared with Stilton cheese, which was much more famous. To produce such cheese, very good production skills and techniques and quality control based on high-quality grass were required. However, the introduction of the steam engine pump in the nineteenth century led to gradual changes in the environment with its unique landscapes, and it also meant the disappearance of Single Cottenham, which was the direct result of the loss of the good quality grass in the area as well as the appropriate environment for breeding cattle.

## **1-2 Floods as social phenomena**

### **1-2-1 Response 1 flood control: idea of the region**

Let us examine floods from the viewpoint of how the area or individuals concerned are protected and how safe they felt. Basically, the inhabitants of the fen and fen-edge areas adapted their life-style to perfectly fit the natural environments they found themselves in. In addition to that, when we consider the market economy, they seemed to respond to the new emerging economic system within the framework of the environment they lived in. In other words, the transformation of the natural environments drove the abrupt social and economic change and there was some resistance to what was happening.

Indeed it could be said that floods were necessary events for the area, and as a response to the floods flood control and repair work were things that governments were always aware they had to do. Therefore, looking back through the records, right from the 1427 act through to the General Sewers Act of 1531, the control and management of the fens were supposed to be the responsibility of the central government (Darby, p.37).

Originally, this area was a monastic estate, and the landlords changed as a result of confiscations and sales during the Reformation. However, as far as the fens management was concerned, the reality was that in fact it was largely unchanged, as complaints continued to be made (Darby, p.43). Nevertheless, the inhabitants led by the fen reeves, who were chosen by the parishioners, managed to respond on the spot. Each landholder was supposed to have

responsibility for the repair, cleaning and maintenance of the drainage canals and watercourses. (CRO.R59/14/5/9 Order and Rules of The Willingham Manor Court Leet 1790). The Willingham Fen Reeves' accounts are extant for 1567-1605 (CRO. P177/28/11). The accounts illustrate that the usual number of reeves employed was four. Two out of the four were replaced every year. They were always members of one of the more substantial families in the parish. Fen reeves accounts for Cottenham have also survived. They show again the shares of each parishioner in a series of descriptions (Ravensdale, p.92). Moreover, not only within the parish, but also between parishes, there were bodies for the management of fen commons, including the raising of cattle (Darby, p.28)

*Example 1: Willingham shared some common land (inter-common) with Over (West Fen, the size was a minimum of 80 acres in summer and a maximum of 380 acres in winter).*

*Example 2: According to the 1601 Fen Reeves' account, Jonas Crouch bought the grass on Rood Bush which was adjacent to both Cottenham and Rampton.*

The petition to the Bedford Level Corporation must have been organised mainly by the fen reeves. What seems to have happened is that parishioners paid the expenses and the fen reeves generally took charge of the petitions. Incidentally, in 1604 the contemporary Atkins surveyed the fen areas and found 'an Ingin' on the land of Sir W. Hindes of Over. This would have been a windmill which was the same type as another in the town of Over. This was constructed for the purpose of throwing the discharging water into the dyke to Willingham Mere. Although it was likely to have been short-lived, the 'Ingin' must have been used for flood control and used by the community in the area, or by individuals. (Darby, p.56; Hills, p.25).

#### 1-2-2 flood control: ideas of the governors

Using as a first line of defence the series of flood controls along the river, the governors considered how to minimize the damage. To know the precise agricultural economy of the sixteenth and seventeenth century fen area is extremely difficult. However, what is certain is that the circumstances of this area at the end of the sixteenth century greatly encouraged the bigger drainage projects. In the period of the nationwide famine of the 1590s, even this area, including Willingham itself, could not avoid the effects of several consecutive years of excessive rainfall. The high price of the corn, the constantly higher water level due to the flow of water from the upland areas, and worst of all, the great flood of November 1598, did a lot of damage to the area. In this flood, not only were crops lost but also numerous cattle. These circumstances were too much to bear for the individual villagers. The organisers of the drainage project now had a perfect excuse for pressing ahead with their scheme, and the governors must also have felt obliged to take urgent measures to deal with such a serious situation.

The Fen Project started with this very clear pretext in the seventeenth century. It was surely a state-scale enterprise to rectify the damage caused by the flood and also to encourage the formation of large farms. There is little doubt that the project was an attempt by the landlords to enclose the fen commons on a grand scale, and this was fully supported by the king and those responsible for the drainage project. The inevitable consequence of this was that the revolts and riots frequently occurred in the area of the fenland. Nevertheless, the precise way in which revolts occurred varied from region to region (K. Lindley, Fenland Riots and the English Revolution).

Willingham is a fen-edge parish and 70% of the total parish acreage was made up of commons, in the main fens. The fen reeves were responsible for the control of the fen commons and they were even involved in the resistance to the landlords and their plans. Since the fen reeves were from the main landholders' families, they had the common rights, and 12 out of 25 men who had experience as fen reeves took part in the 'revolt' against the new secular landlord, Sir Myles Sandys, in 1602. In the accounts of 1604, the cost of the lawsuit against Alexander Bowle for assaulting one of the subjects of Sir Myles was paid for by the parish. Sir Myles Sandys was a landlord as well as co-partner of the Great Drainage Projects. He attempted various things in this area, and it seems clear that the changes he brought about could have threatened the life (livelihood?) of the parishioners. The case mentioned above shows it very clearly. However, because of his bankruptcy, there seemed to be an end to the sequence of lawsuits (Darby, p.70).

The fact that the organisers of the drainage project were motivated by profit seeking is very striking. However, they had to try to balance the conflicting interests of the different parishioners so that the irrigation system worked fairly.

Even after the seventeenth century Fen Project, it was quite usual to see comments from contemporaries to the effect that it was 'as wet as ever'. The records show a series of floods from the very serious one in March, 1614 to the one in 1763 in which the water came up to the ankles of people in their homes (Ravensdale, p.11). Although they did also see a partial or temporary success of the drainage project (Darby, pp.93-103) as the contemporary W. Dugdale described, there was a problem with the sinking of the peat soil to under sea level, as well as the fact that water transport was made more difficult. And in fact, until the introduction of the steam engine pumps, they could not completely avoid some damage caused by flooding (Darby, pp.96-98). Even now the problems of the peat layer sinking and the deterioration of the natural environment and ecological systems have not been completely solved.

To sum up, because of its mixed farming, including the dairy production based on the broad fen commons, Willingham did not experience a particularly large increase in mortality in the early modern period. However, the years of 1596 and 1597 are exceptional. In the late 1590s when there was at any one time either a nationwide famine or bad harvests this fen-edged area, which Willingham belongs to, could not entirely escape the effects, and the main reason was the excessive rainfall which continued for quite a long period. On top of the high prices of corn and the ever-rising water levels due to flooding from the upper area, the flooding which was on a much larger scale in November 1598 inflicted great damage on the inhabitants in and around the village. The shortage of corn and the drowning of numerous animals hit the villagers very hard. These sorts of disasters were too great for individuals to deal with effectively on their own and so the government was obliged to take effective measures to alleviate the situation. This is the pretext employed by those involved in the fen drainage projects including the landlords.

As for the specific circumstances within the parish of Willingham, this bad harvest is one of the factors that caused the fragmentation of the landholdings in this period. The landholders who were hard up sold parts – or in some cases all - of the landholdings to those relatively prosperous landholders in the same village who were able to afford them. The accounts of the fen reeves (who were responsible for the control of the drainage and irrigation system) also suggest the difficulties caused by the bad harvest, since these documents do not have any descriptions for the year of 1596 when the bad harvest and the famine which resulted were most severe. Moreover, these parishioners including the relatively less prosperous people such as the day labourers, left wills and this period saw a wider range of kin relationships referred

to in documents . Kin relationships seem to have acted effectively as a safety net during the period of the emergency, which fell between the Reformation and the dissolution of the monasteries (which was also accompanied by the dissolution of the parish religious guilds which had been the means by which villagers were able to help one another), and the establishment of the Poor Law institution.

## **2 For Historical Parallel and Contrast with Nakagohya, Nishi-kanbara, Niigata, Japan**

The 'Warichi' (Land Distribution) system has been discussed among Japanese economic historians for a long period, but there is no fixed definition, and so not surprisingly, there is no established English translation for it. Furthermore because of the 'interesting outer appearance and complicated inside' (Philip Brown), if an English agricultural historian sees it he or she might be confused. According to the summary of discussions held between Prof P. Brown and others, 'warichi' is a communal land owning system of the Edo period, under which peasants were not allowed to own the land, although they had the right to cultivate; and the land was not individually but commonly owned. The literal meaning of 'warichi' is the practice by which individuals exchanged the land that was to be cultivated by taking turns or by drawing lots. In this respect the use of the commons in the two villages is comparable as the purpose was the protection of the natural resources. There are complicated variations nationwide and if all of them are categorised as 'warichi', which occupied 25% of all the cultivated land in Japan. The origin of the 'warichi' has also not been determined, but the most likely reason is that they came into existence in response to natural disasters. However, 'Warichi' were created in several different ways depending on the circumstances and we can see considerable regional variations including in Nakagohya.

So far, it can be said that as a result of the research carried out in Nakagohya, the introduction of 'warichi' there was likely to have been connected with the reclamation of rice paddies and the construction of new irrigation systems, as the case of Yoroigata shows. In the rural societies of England or Western Europe, the open field system, three fields system and crop rotation system based on the unit of the furlong had its own particular logic. On top of that, each region shows different combinations of those agricultural systems according to the natural environments, landlord-governorships and tax systems. Japan is no different. The distribution of land amongst community members is something which varied in each area of the country according to the characteristics of the natural environment, landlord-governorships and tax systems. In other words, what they have in common is their considerable variety. Furthermore, when we come to consider the riparian works in any area or carried out by particular individuals in the early modern period, or examine matters from the national perspective or look at individual governors, Japan and England are alike. Although the English Fen area was in some ways more advanced than Japan by about a century, the English still did not solve all the problems until the development of a steam engine pump built to carry out drainage. As the result, the landscape did not change by and large. This is another characteristic both societies have in common.

If we base our definition on the conclusions of recent discussions held by Western scholars, 'warichi' is a communal land owning system of the Edo period under which peasants were not allowed to own the land, although they had the right to cultivate it; and the land was not individually but commonly owned.

From the viewpoint of English economic history, both rural societies are alike in terms of the natural environment and their level of technological development, although there is, in

other respects, a gap of about a century. However, we can say that Japanese Warichi is a system that could only develop in a society where rice is the main crop and is taxed, and in a society different from that of the English Fenland. In early modern England, the system of landholdings does not show a clear difference between landholding and landowning, which was because freeholdings, copyholdings and leaseholdings existed side by side. It was also the case that individuals would often have landholdings that extended beyond the parish boundaries. These are common in the Japanese Warichi areas. In addition, they did not divide their main family holdings as well as cash-gaining crop lands. This is again very similar to what happened in the English Fens.

## Conclusion

During the development of the market economy it is certainly true that the village society often shows a certain communality, which helped to preserve the character of the regional society and the natural symbiotic control over the use of economic resources that were needed for the market economy. The response to natural disasters such as famine and floods often took place in such historical and social contexts.

Work in each research field has shown that social and economic organisations revealed their communality at the everyday level and there are common, or at least very similar, features which unite all the different activities carried out at times when natural disasters struck.

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