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ECONOMICS 301Y1

The Economic History of Later Medieval and Early Modern Europe

LECTURE TOPIC NO. 6:

III. BARRIERS TO GROWTH IN THE MEDIEVAL ECONOMY

C. **Medieval Manorialism and Peasant Serfdom: the Agricultural and Economic Foundations of Medieval Feudalism**

D. **Agricultural Field Systems in Medieval European Peasant Farming:**

1. **Southern Mediterranean 'Dry' Farming: individual peasant plots**
2. **Northern European 'Wet' Farming: Open Field Manorial Farming**

E. **Economic Significance of Manorial Open-Field Farming (with Peasant Serfdom): as Barriers to Economic Development**

III. BARRIERS TO ECONOMIC GROWTH IN THE MEDIEVAL ECONOMY:

B. Medieval Manorialism and Peasant Serfdom: the Agricultural and Economic Foundations of Medieval Feudalism

1. Feudal Manors: Manorialism and the Structure of Medieval Agrarian Society

a) **The connection medieval manorialism and feudalism:**

i) **Manorialism was the overwhelmingly dominant agrarian economic and social institution in European,** especially in northern European, history, from about the 4th to 18th centuries.

ii) **Manorialism both pre-dated the emergence of true feudalism and long outlived that institution:** and for that crucial reason we should always be careful to distinguish between feudalism and manorialism.

iii) **Nevertheless during the greater part of this period and during the heyday of true feudalism there was a simple and obvious connection between the two institutions:** that the feudal manor was generally also the feudal fief; and thus the fief was generally a manor:

(1) i.e., as we saw, in the previous lecture, the feudal fief was the landed property that the knight-vassal held from some superior lord as reward for his military service.

(2) That feudal fief could be one or more manors -- generally several manors, as a collection of landed estates or properties.

iv) **Thus the medieval lord or ruler of the manor,** ruling over and governing the peasant inhabitants (to varying degrees) was frequently though not always a feudal knight.

v) **But the manorial lord could also be an ecclesiastical noble, female as well as male:** i.e.,

(1) abbots who ruled monasteries, abbesses governing nunneries, or cathedral bishops in the major cities,

(2) all of whom similarly required landed estates for supporting their functions and way of life.

vi) **Nor were all manorial landlords necessarily part of the feudal system:**

(1) subsequently, especially during later 15th, 16th and 17th centuries, we shall find that many town dwellers, the bourgeoisie, in the form of merchants, financiers, and lawyers, purchased rural manorial estates -- from needy nobles,

(2) and thus becoming 'gentlemen' – or those who were called *gentry*, in late-medieval and early-modern England.

(3) in many ways, they imitated the lifestyles of feudal lords.

vii) **But whether or not the manorial lord was a true feudal knight or not, he or she almost always possessed and utilized judicial powers (implicitly backed by force):** i.e., the power to hold court, to punish, to levy fines, etc.

b) **Manorialism**: **some definitions:** as the economic foundations of feudal agrarian society, to be analysed in terms of a working model for European economic history (and thus not defined in terms of time and space).

i) **A Working Definition**: **an economic lordship based upon dependent peasant cultivation:**

(1) **a system of dependent cultivation,** in which a community of peasants, ranging from servile to free, received their lands or holdings from a landlord -- usually a feudal, military lord.

(2) and they worked those lands at least in part for his economic benefit, in return (at least in theory) for both economic and military security in holding their tenancy lands.
(3) The benefit that the peasants supplied the lord in return for their lands can be seen, in effect, as various forms rent: paid in labour services, in a share of the harvest, and/or in money.
(4) Those payments might be called fines or taxes, paid in addition to normal rents, but they still constituted a form of rent.
ii) **As an economic lordship,** the manor itself was generally a collection of agrarian lands so varied in form that it defies any exact definition and description.
(1) The manor might sometimes be the same as the peasant village plus the lord's own private estate;
(2) or, quite frequently, it might be several peasant villages,
(3) or even parts of several villages, thus shared with other manors or a collection of farming properties (often scattered).
(4) This sharing and partitioning of villages by two or more manorial authorities seems to have become quite common in medieval England in particular.
c) **Was Manorialism a System of Economic Exploitation?**
i) **In the Marxist viewpoint:**
(1) the manorial or feudal lord utilized his military and judicial power to exploit the peasant tenants as fully as possible, with the object of 'capturing the full economic rent on land'.
(2) Please recall that I treated this topic of Ricardo's concept of economic rent, and the evolution of this theorem in the present day, in my earlier lecture on population (no. 4).
(3) you can also re-read the document on this topic of Economic Rent (which I handed out in class) on my Home Page.[1]
ii) **Rarely if ever, however, did manorial lords succeed in capturing all the economic rent or surplus product on lands worked by their peasants:** at least not in the later medieval West.
iii) **the degree of that so-called exploitation,** and the degree to which landlord and peasant in historical fact ended up sharing any economic rent accumulating on land was dependent on the changing balance of powers between them.
iv) **The changing balance of power in part depended upon changing values that the peasant community placed upon security and freedom:**
(1) the more they treasured security and protection the more willing they were to surrender their freedom;
(2) but the more that they came to feel secure without military or judicial protection of lords the more likely they were to seek or purchase greater freedom from their lords (if only freedom to work their own lands).
(3) All the more so if the greater perceived threat to their own security came from within (inside) rather than from outside the manor.
v) **Much of this will only come clear when we examine the actual forms of agriculture that were practised under manorialism:** in particular the form of peasant-organised village agriculture known as

[1] http://www.economics.utoronto.ca/munro5/ECONRENT.pdf

Open Field farming, which, in fact, evolved to protect the peasants from manorial interference.

vi) **The growth of markets:** markets sales and thus commercialized agriculture also proved to be a powerful force in reducing peasant dependence and gaining them greater freedom.

vii) **Furthermore,** one of the supposed instruments of manorial oppression -- the manorial courts -- in effect established forms of customary law and tradition that also protected the peasants.

viii) **This is often expressed as the conflict or struggle between *voluntas* et *consuetudines:*** i.e., a conflict between:

(1) the will (*voluntas*) of the lord -- his relative power over powers -- and

(2) the strength of manorial customs (*consuetudines*), as recorded in manorial court rolls.

ix) **Finally the degree of manorial exploitation was also conditioned by differences in social strata amongst the peasants,** for not all peasants were subject to the same degree of dependence on the manorial lords.

x) **That question therefore leads us to the third element of classical medieval Feudalism:** namely the institution of serfdom.

2. Peasant Serfdom and Manorial Exploitation

a) **Serfdom varied enormously across medieval and early-modern Europe, varying by both place and time**:

i) **Serfs varied in status from being virtually a slave to virtually free**:

(1) but usually servile status involved some degree of serious limitations on personal freedom, especially freedom of movement

(2) Note that the term 'serf' is derived from the Latin word 'servus' = slave

(3) Since serfs enjoyed a much higher, more elevated status than had slaves, especially Roman slaves, European languages had to find an alternative word for slave:

- In most European languages, the word slave is derived from the word Slav
- because, in the expansion of Germanic settlements eastward meant conflicts with the indigenous Slavic peoples, and conquests of their lands, in turn involving the capture and enslavement of Slavic people
- As noted earlier, the rise of Venice from the 8th century (as part of the eastern , Byzantine Empire) was initially dependent on the export of Slavic slaves to the Islamic world

(4) As for European serfs, we should also note that in both England and France, a common synonym was *villein* (English), *vilein* (French); and thus a synonymy for serfdom was *villeinage*: [2]

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[2] From Answers.com, taken from the *Columbia Encyclopedia*: villein (vĭl'ən) [O.Fr.,=village dweller], peasant under the manorial system of medieval Western Europe. The term applies especially to serfs in England, where by the 13th cent. the entire unfree peasant population came to be called villein. The localism of medieval economy has made a general definition of villein status exceedingly difficult. The villein was a person who was attached to the manor and who performed the servile work of the lord and in some respects was considered the property of the lord. Various distinctions of villeinage, or serfdom, were sometimes made. In privileged villeinage the services to be rendered to the lord were certain and determined;

ii) **We shall explore this social institution by using again a heuristic model of serfdom (villeinage), which includes all of the possible or theoretical limitations to freedom**

iii) **but this model** is not to be taken as applying to any particular time or place

iv) **certainly not to England -- where, in fact, this model fits very badly:** and that is one of the major points to be derived in examining this model.

v) **We shall be analysing the economic and social factors involved in two geographically contrasted phenomena concerning serfdom:**

(1) the decline of serfdom in western Europe, from the 12th to 15th centuries; and, almost paradoxically,

(2) the subsequent expansion and spread of serfdom in eastern Europe: from the 15th to18th centuries

- eastern Germany: i.e., Mecklenburg, Pomerania, Brandenburg, Prussia
- Bohemia, Hungary, Poland, Lithuania, Ukraine, Russia,

b) **A theoretical model of the conditions and bondage of Serfdom**:

i) **personal bondage to some manorial military lord, or an economic bondage to the estate**: as a captive labour supply, as unwilling servants, especially in earlier medieval Europe.

(1) In many places, serfdom may have begun as a system of personal bondage between peasant and lords;

(2) but then subsequently that bondage changed its character to become one tied to the estate rather than to the personal lord.

(3) Whether the peasants were bound personally to their lord or bound to the estate, they were still unfree: forbidden under customs of feudal law to move or seek better opportunities elsewhere.

(4) This bondage of servitude was passed on by inheritance to the children;

(5) but, as you can readily appreciate, that also had the effect of virtually guaranteeing inheritance rights to the children of serfs, their rights to succeed to the father's holding.

ii) **Subjection to some arbitrary labour services on the manorial estate, as a consequence of such bondage:**

(1) i.e., to work the lord's own demesne (domain) lands, without direct specific compensation, up to three days a week (in 10th - 11th centuries), allowing little time and energy to work own lands.

(2) Those arbitrary and compulsory labour services were regarded as a form of **rent** that the serf had to pay in order to live and work his own plot of land.

(3) as noted earlier, the rent that peasant tenants, especially servile, was a mixture of:

- labour services on the lord’s demesne (domain), again as an arbitrary exaction
- some share of the harvest, i.e., a rent paid in kind

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in pure villeinage the services were unspecified, and the villein was, in effect, subject to the whim of the lord. The villein was theoretically distinguished from the freeholder by the services and duties he owed to the lord; these included week-work (a specified number of days' work on the lord's demesne each week throughout the year) and boon days (work required at busy periods during the seasonal year, as at plowing or harvesting time), payment on the marriage of the villein's daughter, payment of tallage on demand, and the like. In practice, however, distinctions blurred, and all land tenure on the manor tended to approach a common level. The villein in England was protected by law against all except his lord, and some guarantee against the lord's power was gradually extended by the royal courts.

- but more and more, in later centuries, rents paid in cash
- in general: an historical transition from labour services to money rents

iii) **Subjection to other arbitrary rental exactions for the use of land and for protection**: i.e., (1) arbitrary rents in terms of handing over a share of their harvest to the landlord, especially,

(2) but sometimes also arbitrary exactions in cash payments.

iv) **Personal subjection to demeaning taxes not paid by free peasants**: these taxes marked the lord's ownership of the serf, his land, and property, and thus marked the peasant so afflicted as servile, i.e., as a serf rather than a free man. The most important of these taxes were:

(1) **merchet (formariage)**:

- this was tax on marriage of serf's daughter
- initially outside the estate: to conserve the lord's labour supply;
- but in some English manors this 'marriage tax' also applied to males.

(2) **leyrwite:** fine that the (female) serf paid the lord for bearing a child out of wedlock; i.e., a fine for bastardy.

(3) **entry fines**: in England, an inheritance tax:

- one that a serf paid on succeeding to his servile father's tenancy holdings.
- These entry fines were often elastic and sometimes could be quite exorbitant;
- thus they could be used to evict unneeded, unwanted serfs.

(4) **heriot**: inheritance tax that the serf paid to his lord on acquiring capital goods from his father's holding, especially livestock, chattels: usually paid in the form of the best head of livestock (usually one or more oxen).

(5) **tallage**: arbitrary poll or head taxes, usually imposed once a year, usually at a uniform rate, irrespective of income [from French: *tailler,* to cut into individual pieces]

(6) **mainemorte:** in many (though not all) parts of France,

- a requirement that when the serf left no direct male heir, no sons, his tenancy reverted to the true owner, the seigneur or feudal lord.
- but, not generally true in England, where entry fines and heriots prevailed

iv) **Inability of serfs, as unfree men, to function in many of the capacities of free men**:

(1) to enter the church, royal service, the army, or serve on royal or Common Law juries

(2) to render services in royal courts, or those of the feudal principality (which might be a blessing in disguise).

(3) But servile peasants did serve on manorial courts (at least in England)

c) **Servile Property Rights and the Courts**:

i) **On matters concerning property rights, serfs were also originally and generally subject to the exclusive jurisdiction of manorial courts;** and they were unable to appeal any manorial court decisions to higher, royal courts (in both western and, later, in eastern Europe).

ii) **this lack of protection by royal courts was initially true in most of medieval western Europe;** and it was certainly true later in eastern Europe, certainly by the 16th century in most places.

iii) **In France, however, from the 13th century,**

(1) the French kings deliberately undermined the power of feudal courts by allowing royal courts to hear appeals by the servile peasantry against their seigneurial or feudal masters.[3]

(2) The Parlement usually favoured the servile peasant tenants, simply in order to reduce the opposing power of the feudal aristocracy: and did so at the behest of the French kings.

(3) Thereby the French servile peasantry increasingly gained much more secure property rights,

(4) and indeed much more secure than those to be found in later-medieval England, where the aristocracy posed a far less ominous problem to the centralized English monarchy.

iv) **In contrast, therefore, and to repeat: English serfs had far less secure property rights:**

(1) In medieval England, royal courts, whose jurisdiction had expanded across the country a century earlier, in imposing common law (in the mid-12th century) across a unified England,

- had refused to interfere with manorial courts on issues involving property rights;
- i.e., royal justice stopped at the gates of the manor,
- except for matters involving criminal offences, crimes against the kingdom (and those involving 'life and limb.')

(2) As one historian has also pointed out, the king himself was a major landowner and manorial lord in his own right, in the 12th and 13th centuries,

(3) and thus English kings did not want to set any precedents that would allow royal courts to interfere with their own manorial jurisdiction over peasant holdings.

v) **This is a major reason why later English landlords found it so much easier than French landlords to evict their peasantry and seize their lands:** in that process known as Enclosure.

vi) **The difference is only relative,** however, because some English peasants of servile origin (known as 'copy-holders') were able, by the 15th or 16th centuries, to acquire contractual property rights that were fully protected by Common Law courts.

d) **Free Peasants**: who were they?

i) **Those peasants whose conditions of tenure and service were defined by contract,** often a written contract;

ii) **those who were fully protected by both manorial and royal courts,** and those also those entitled to sit on and participate in court juries;

iii) **those who could perform military and judicial services -- to bear arms;**

iv) **and thus those free to seek lands or their livelihood elsewhere.**

e) **The Origins of serfdom**: some theories [4]

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[3] Note that in France the manor was known as the seigneurie; and thus manorialism was known there as seigneurialism (also sp: seingiorialism). The word 'seigneur' means feudal lord.

[4] See Marc Bloch, 'The Rise of Dependent Cultivation and Seigniorial Institutions', in Michael Postan, ed., *Cambridge Economic History of Europe*, Vol. I: *Agrarian Life of the Middle Ages*, 2nd rev. edn. (Cambridge, 1966), pp. 235-89; Marc Bloch, *Slavery and Serfdom in the Middle Ages* (Berkeley, 1975); pp . 1-91; Evsey D. Domar, 'The Causes of Slavery or Serfdom: A Hypothesis', *Journal of Economic History*,

i) **Sometimes we can better understand the factors involved in the decline of an institution by examining its origins,** formation, and growth.

ii) **And so we should briefly look at emergence of serfdom during the late Roman Empire,** and the early medieval era.

iii) **At the same time,** we should look to see if there is any parallel between the rise of serfdom in the early-medieval West and its much later rise or expansion in early-modern Eastern Europe.

iv) **One model we might use is the Bloch-Domar model,** referring to Marc Bloch's thesis on the late-Roman origins of serfdom, combined with Evsey Domar's thesis on the origins of East European serfdom (who re-invented theory, not having read Marc Bloch).

f) **The Bloch-Domar Thesis on labour scarcity** :

i) **Labour scarcity developed in the Roman Empire from about the 3rd century as result of:**

(1) The Pax Romana (Roman Peace): diminishing supply of new slaves

(2) serious depopulation: 3rd to 9th centuries: especially with the Justinian Plague (541-c. 750)

ii) **The labour economics of estate farming under the late Empire**:

(1) Agriculture, especially for producing grain (wheat), took two major forms in the Roman Empire, by the first century CE (Common Era)

- very large landlord-owned estates, called *latifundia*, worked by slaves under centralized supervision (salaried employees of the landlord)
- free peasant faming, with small, individual plots of land, most of which were rented from landlords.

(2) Many or even most of these landlords were powerful military men, often senior officers in the army who had received their lands from the Imperial government in reward for military service

(3) these Roman landlords, facing this growing labour scarcity, and also growing burdens of land-taxes imposed by the Roman government, needed a much better guaranteed labour supply;

(4) but they also needed a labour force that was rather more productive than slave labour: i.e., a labour force that had a greater incentive to work (or less incentive to 'shirk') than slave labour.

iii) **So serfdom in late-Roman Europe emerged from two sources (according to Bloch)**, both involving some bondage to the soil:

- elevating status of slaves and
- depressing status of free peasants

(1) From former Roman slaves, who had become too valuable as labour to be treated as slaves: an so became serfs, with these differences in status from being slaves

- serfs while bound to the estate could not be killed or dispossessed of property,
- serfs were allowed to marry and raise children on their own holdings, in their own huts
- these servile holdings, as farm lands, were carved out of the great *latifundia* estates

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30 (Mar. 1970), 18-32 (Domar never mentions Bloch); Wendy Davies, 'On Servile Status in the Early Middle Ages', Michael L. Bush, ed., *Serfdom and Slavery: Studies in Legal Bondage* (London and New York: Addison Wesley Longman Ltd., 1996), pp. 225-46.

- serfs were also free to own and bequeath property;
- they were granted certainly far more personal rights than any slave had every enjoyed.

(2) Formerly free tenants or free workers on large estates, who became legally tied to the estates, by the early 4th century: in order to prevent them from utilizing market forces, i.e.

- in bidding up wages
- or bidding down land rents,
- or in leaving to seek better conditions elsewhere.

(3) so they similarly held farm lands as their tenancies, again carved out the great estates

(4) of their originally independent farm lands were absorbed into great manorial estates, which offered them personal protection and security

(5) In historical fact, serfdom came to be legally established, under Imperial law, with the institution of Roman **colonnate** during the reigns of the Emperors Diocletian (284-305), Constantine (Emperor 306 [sole Emperor from 324] - 337 CE), and their successors:

(6) for the **colonnus** was in effect a serf.

(7) Thus, you can see by its origins, that serfdom began as and remained a half-way house between true slavery and personal freedom.

iv) **Early-Medieval Europe and the military aspect**: insecurity as a cause of serfdom, a subsequent and major element in the Bloch model, this time involving ties of personal bondage to a military lord.

(1) As we have already seen, for the Post-Roman era, in early medieval Europe, centralized authority decayed, then fell apart, with Germanic invasions;

(2) and the new Germanic kingdoms in early-medieval Europe failed to provide adequate authority and police power (thus providing true origins of military feudalism).

(3) Thus, Germanic military chieftains imposed their personal rule in conquering villages;

(4) and they, or subsequently their feudal successors, would subject these villages to serfdom;

(5) or conversely, many villages willingly surrendered themselves to the subjection of a feudal lord and to conditions of serfdom to gain security.

(6) In either case, by the 9th century some but only a few free peasants remained, certainly in France. (7) In England, however, following the Norman Conquest of 1066, about 25% - 30% of the peasantry still remained more or less free, not servile.

g) **Slow Erosion of Serfdom in Western Europe from 12th Century**:

i) **To be discussed later:** next day: on the topic of the 'Decline of Serfdom':

ii) **only after we have fully examined the role of the peasantry** in the agrarian economy of the manor**;**

iii) **and then, on basis of our previous demographic studies,** to measure the impact that the consequently changing land:labour ratios had upon peasant labour markets and thus upon serfdom.

3. <u>The Physical Organization of a Medieval Manor:</u>

a) **Medieval European manors were usually divided into three parts**: as already discussed in the introduction, with a theoretical model:

(1) the lord's demesne [aka: domain]; and

(2) the peasant tenancies: both free and servile (often called 'customary')

(3) the village commons: grasslands, pasture lands, woodlands used in common by the villagers

b) **The manorial lord's demesne (domain)**:

i) **the central part of manorial estate,** usually with the best lands, held apart from the exclusive use of the lord and his family.

ii) **These lands included of course the actual home of the lord,**

(1) his castle or chateau, with surrounding gardens, kept well away from the peasants;

(2) but also included agricultural lands, often the very best farming lands of the whole estates, vineyards, pasture lands, etc.

(3) forest lands: for hunting, for feeding animals, for wood, etc.

(4) **Note:** the word 'domain' comes from the Latin *dominus*: meaning 'lord', i.e., lord of the manor, in this case.

ii) **How were these demesne (domain) lands worked?**

(1) **In the earlier Middle Ages, much as on old Roman estates**:

- by hutted or domiciled slave and servile labour;
- but, as noted earlier, such labour supplies became very scarce, by the 3rd century CE
- At the time of the Norman Conquest of England in 1066 (introducing formal feudalism into England), slavery was still quite widespread on Anglo-Saxon manorial estates

(2) **Subsequently with evolution of true manorialism, by the labour services of servile tenants**: as noted, up to three days a week.[5]

(3) **By the later Middle Ages, many of the agricultural tasks, on many if not all lands, were more and**

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[5] See: John Munro, 'Crisis and Change in the Later Medieval English Economy', *Journal of Economic History*, 58:1 (March 1998), 215-19: a review-article based on Richard Britnell and John Hatcher, eds., *Progress and Problems in Medieval England: Essays in Honour of Edward Miller* (Cambridge and New York: Cambridge University Press, 1996); and especially my comments on the essay by David Farmer, 'The *Famuli* in the Later Middle Ages', which follow: ' The starting point for David Farmer's seminal study of the peasant *famuli* in later-medieval England, was Michael Postan's famous monograph on *The Famulus: the Estate Labourer in the XIIth and XIIIth Centuries* (1954); and his objective was to trace the subsequent fate of these generally servile agricultural workers, who constituted the great majority of manorial ploughmen. From a detailed examination of 46 Winchester manorial accounts and 8 Glastonbury accounts, Farmer found that the servile *famuli* continued to provide the bulk of ploughing and other labour services on the manorial demesnes throughout most of the fourteenth century, but with many striking changes over this and the next century. The manorial acreage seeded in grain, and thus the number of ploughmen required and the aggregate number of *famuli*, all declined continuously throughout the fourteenth and early fifteenth centuries. Surprisingly, however, the steepest declines were to be found in two quite disparate eras: from 1305 to 1340, i.e., well before the Black Death; and from the 1380s to the 1420s, long after the Black Death (see Hatcher). For the intervening plague era (1348-80), with much more moderate declines in these three variables, was an era of relative prosperity for arable agriculture, as Raftis and others have also found. Even more surprising, even taking into account the somewhat anomalous nature of the Winchester estates, is the strong evidence that labour productivity, for the period 1341 to 1421, fell rather than rose on the arable (contrary to most scholarly assumptions), though it did indeed rise in pastoral farming, chiefly in sheep-raising.'

more worked by hired wage-earners:

- who were often free but landless peasants;
- or they were peasant tenants with holdings too small to support their families so that they were compelled to seek supplementary income from wages.

(4) **How did this develop?**

- with the spread of a market economy for agriculture, more and more peasant tenants, conserving their energies to work their own holdings, were able to sell some surplus crops for cash.
- such manorial lords used the cash from their rentals, as well as cash from selling own crops,
- to hire landless labourers,
- who could be hired quite cheaply with general population growth from 12th century.

(5) **By and large that hired and seasonal labour was more efficient,** less costly than servile labour: again, because it had a greater incentive to work harder:

- since such labour was paid wages – or higher wages than was paid to 'customary' or servile labour
- and, furthermore, because such labour could be dismissed – fired, while of course servile labour could not be dismissed:
- since the essence of servility was being tied to the land or the estate

(6) **It was often more profitable for the intelligent manorial lord to give his serfs greater freedom,** freedom to work their own lands for an increased flow of cash rents.

(7) In general: an evolution of a labour system based on personal services to one based on cash.

iii) **Contraction of the demesne in later-medieval western Europe, and perhaps more especially in England:**

(1) when demesne lands had contracted and become a relatively small part of the estate,

- the demesne holdings often become intermixed with the peasant tenancy lands –
- to take advantage of communal peasant ploughing
- to take advantage also of 'folding' from the village livestock: i.e., the deposit of sheep and cattle manure as they grazed on the fallow (natural grasses) and post-harvest arable

(2) The reasons for this shall have to wait until we get to the agrarian changes in late-medieval, early-modern northern Europe), especially the post-Plague agrarian changes.

c) **The Peasant Tenancies**:

i) **the lands that peasants held from the manorial lord,**

(1) usually, historically, carved out of the lord's demesne lands in effect, renting them from the manorial landlord:

(2) both free tenures and customary (servile or villein) tenures

(3) combination, later, of hereditary tenures and leasehold tenures

ii) **the rent, as noted earlier, was paid in one or more of the following forms**:

(1) **in labour services on the lord's own demesne lands**:

- especially for serfs, or those holding servile tenancies: up to three days a week work,
- but an indeterminate and arbitrary form of labour rent.

(2) **in kind, as some share of the harvest, variable or fixed**: often half of the harvest, whether small or large.

(3) **in cash, as money rents, usually for a fixed sum**:

- often, as suggested, they were former labour services converted into cash;
- and depended on some commercialization of manorial agriculture.
- most peasants found this to be the most advantageous form of rent, especially in inflationary periods, when the real burden of such rents, fixed in money-of-account terms, consequently fell.

ii) **The peasant tenancies could be held in several forms**:

(1) **free peasants**: freehold hereditary tenancies, by which all rental payments (usually money rents) and any other obligations (such as military service) were fixed in perpetuity.

(2) **servile peasants, with de facto hereditary tenancies**:

- in so far as the serfs were bound to the manorial lord or to his estate: obviously if that bondage was transmitted by blood, by inheritance, so was the tenancy.
- But the rights to inheritance were not as firm as for free peasants: the lord still owned and controlled these lands, and could thus impose inheritance taxes on the serfs ('entry fines'), which could be variable and arbitrary, as noted last day.
- In England, inheritance rights often came to be limited to just one, two, or three generations (one to three 'lives') – but chiefly only from the later Middle Ages;
- and in parts of France, as noted, inheritance rights were limited to direct male heirs, to sons -- in default of which lands reverted to the lord.

(3) **Leasehold tenancies, from the later Middle Ages**: tenancies defined by written lease-contracts for a specific number of years, and thus were not inheritable.

- These were usually new lands added to the manor;
- or often they were parcels of the lord's own lands, the domain lands, to which we now turn.
- sometimes peasant leasehold properties, carved out of the lord's domain (demesne) were in fact in the form of plough strips interspersed with the lord's domain strips.

iii) **The division of peasant tenancies in England, ca. 1300 - 50:** between free and villein

Several interesting conclusions may be derived from the following table (based on the manorial research of Bruce Campbell):

Free and Villein Rents and Services on English Lay Manors, 1300 - 1349:
Estimated Percentage of Rents and Services by Value

Type of Rent	Small Manors worth under £10 per year	Large Manors worth more than £50 per year	All Manors
TOTAL FREE RENTS	**55.00**	**37.90**	**42.90**
TOTAL VILLEIN RENTS & SERVICES	**44.90**	**62.20**	**57.20**

Type of Rent	Small Manors worth under £10 per year	Large Manors worth more than £50 per year	All Manors
no. of manors	1,910	334	4,090
Mean value of rents & services	£2.30	£38.20	£9.30
Mean Value of manor	£4.80	£85.50	£19.10
Percentage free land (approximate)	**70%**	**55%**	**60%**
Percentage villein land (approximate)	**30%**	**45%**	**40%**

Source: Bruce Campbell, 'The Agrarian Problem in the Early Fourteenth Century', *Past & Present*, no. 188 (August 2005), Table 4, p. 27.

(1) **Division of the total area of English arable land by type of peasant tenants:** 60% in free peasant tenancy lands, and thus only 40% in villein (servile) tenancies

(2) **Division of total manorial rental incomes by type of peasant tenants, was the reverse:** only 42.90% came from free peasants, while the remaining 57.20% came from the villein (servile) tenants.

(3) **We may thus conclude, that per area units of tenancy lands, the rental burden imposed on villein tenants was substantially higher than that imposed on free peasants:** it paid to be free!

(4) **The size of the manor was also important:** on large manors worth more than £50 (with an average rental income of £38.20 per year), we find that:

- a higher proportion of the tenancy rental incomes came from villein tenants than from free tenants: 62.20%
- compared to 44.90% on small manors, worth under £10 a year (average rental: £2.30 year).

(5) Important qualification: Campbell's manorial research was on documents only from lay manorial estates – none from ecclesiastical estates, i.e., manors headed by monastic abbots or cathedral bishops and archbishops

- with large variations in incomes and peasant status between ecclesiastical and lay estates:
- with, almost paradoxically, proportionately more servile tenancies on ecclesiastical estates:

(6) We also find enormous regional variations in peasant status

- fewer free tenant lands in the more feudalized Midlands
- and thus a larger proportion of free (vs. villein) tenancies in the non-feudalized north and west. (See tables in the Appendix).

d) **The Village Commons**: were various outlying lands of the manorial estate, such as pasture lands, meadow lands, forests, waste lands, etc.

i) **these lands were legally the exclusive possession of the lord,** but in fact were used in common by the lord and the villagers.

ii) **especially important for grazing livestock -- sheep and cattle;**

iii) **and also for feeding other animals:** e.g., pigs and goats from nuts, berries.

iv) **forests also extremely important:**

- not only for hunting (usually lord's preserve) but
- especially for wood and timber: for fuel, for construction and for tools (when so little metal was used).

v) **These village commons, lands used in common, must not be confused,** however, with the so-called Common Field system, better known as the Open Field system, to be seen later in this lecture

e) **The Division of Manorial Incomes for English Landlords ca. 1300**: **Gutsherrschaft vs. Grundherrschaft**

(i) There are basically two types of manorial economies, defined by the primary sources of their incomes for the manorial lord, according to German historical usage:

(1) ***Gutsherrschaft***:

- a manorial economy in which the primary or single most important source of income comes from the commercial exploitation of the demesne: principally for grains, livestock products, and timber
- in such economies, a significant proportion of the peasant tenancy rentals is in the form of labour services: i.e., in working the demesne lands.
- Thus, much of the manorial peasantry were servile: serfs or *villeins*
- another important source of manorial income for the lord was 'profits of justice': i.e., revenues derived from the legal operations of the manorial court
- also to be added were other sources of income that the lord extracted from peasants: chiefly in the form of so-called *banalités*: i.e., fees for the compulsory use of the lord's grain mills, water-mills, brewery, bake houses, etc.

(2) ***Grundherrschaft***

- a manorial economy in which the primary or single most important source of incomes for the manorial lords comes from the rentals on peasant tenancies (free and servile)
- in such an economy, with a much reduced demesne sector, peasant rents rendered in the form of labour services are either of minimal importance, or non existent
- formerly servile of villein tenancies have become, in England, 'copyhold' tenures: 'tenure by copy of the court rolls according to the custom of the manor;'
- and they were thus also called 'customary tenants': whose significance will be seen in the following lecture on 'the decline of serfdom' in the West.

ii) **Examples of *Gutsherrschaft* manorial economies in England before the Black Death:**

in all of them, receipts from the demesne (domain) itself were always the smallest share of total incomes.[6]

(1) **Bishop of Coventry (Staffordshire) in 1291:**

- Demesne receipts 15%
- Rents from peasant tenancies: 47%
- Exercise of Manorial Lordship: 38%

(2) **Earl of Lancaster's Estates (Staffordshire) in 1313-14**

- Demesne receipts 11%
- Rents from peasant tenancies 50%
- Exercise of Manorial Lordship 39%

(3) **Verdon Estate of 1327:**

- Demesne receipts 26%
- Rents from peasant tenancies 55%
- Exercise of Manorial Lordship 19%

iii) **Manorial lordship:** entry fines, merchets, heriots, tallages, leyrwite, and also fees for the compulsory use of the lord's water-mill, granary, bread-ovens, fulling-mills, etc.

iv) **many more examples** will be found in six tables in the Appendix.

v) **In following lectures, we will encounter two significant changes,** two transformations in this dual set of manorial economic regimes:

(1) In England, from the 1370s to the 1420s: a shift from Gutsherrschaft to Grundherrschaft

(2) In eastern Europe (East Elbia – the lands east of the Elbe River, in Germany), from the 16th century: the converse shift from Grundherrschaft to Gutsherrschaft

vi) **In both,** I will contend that monetary forces and monetary-price factors played a crucial role**.**

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[6] Rodney Hilton, 'Lord and Peasant in Staffordshire in the Middle Ages: the Earl Lecture', *North Staffordshire Journal of Field Studies*, 10 (1970), 1-20; republished in Rodney Hilton, *The English Peasantry in the Later Middle Ages: the Ford Lectures for 1973 and Related Studies* (Oxford: Clarendon Press, 1975), pp. 215-43, especially pp. 232-33.

D. Agricultural Field Systems in Medieval European Peasant Farming: South and North: Private and Communal Farming Systems:

1. Introduction to Medieval Agriculture: Southern and Northern Zones

a) **The agricultural patterns and zones of later medieval Europe differed very markedly between north and south,** between a system of essentially private individual plots in the south and extensive communal fields in the north:

b) **The Loire River in France and the lower Rhine and Danube Rivers in Central Europe (to the Black Sea):** marked the approximate border lines or frontiers that divided these two European agricultural zones, of dry farming in the south and wet farming in the north

c) **Mediterranean zone of dry farming: for proper contrasts we begin with the south**, bordering on the Mediterranean Sea:

(1) i.e., for the Iberian peninsula, southern France, Italy (i.e., with the Alps as the northern frontier), Greece, (2) and what is modern-day Turkey (i.e., the medieval Byzantine Empire), and the Levant (modern day Syria, Lebanon, Israel, formerly part of the Byzantine and Ottoman Turkish Empires).

2. Mediterranean Dry Farming: The Two-Field Systems of southern Europe (south of the Loire and Danube Rivers)

a) **In southern and Mediterranean Europe,** the agricultural system and the methods of farming had remained basically unchanged from Roman until early-modern times.

b) **The strength of Roman civilization in the South:**

i) **The agricultural systems of southern Europe,** along the Mediterranean basin (as just defined):

(1) were largely unchanged by the importation of feudalism and feudal manorialism from the Carolingian heartland.

(2) for this a rather imperfect and piece-meal imposition that did not effect major changes in the basic social and cultural bedrock of Roman civilization.

ii) **Strength of Roman Law:** for in those regions south of the Loire and Danube, Roman civil law and Roman customs and also Roman towns still remained strong in the early-medieval era (but weak in the north).

c) **The Climate and the Soils:**

i) **The hot and arid climate provided the other factors that dictated a continuing and unchanging farming system in Mediterranean Europe,** except in those places where artificial irrigation could be practised (and chiefly in Muslim regions).

ii) **Because of a hot arid climate that provided adequate rainfall only through the late Fall and winter months,** crops could be grown only during that winter season, chiefly winter wheat.

iii) **Because of inadequate soil fertility,** and because of the way that wheat-cultivation quickly saps the soil of nitrogen compounds and other aspects of fertility:

(1) Mediterranean farmers could not grow wheat on the same piece of soil for two or more seasons in succession – not without denuding or ruining the soil;

(2) and instead they had to allow the soil rest for a year in between each planting,
(3) to lie fallow to allow nature to restore the soil's fertility.
d) **Hence the traditional two-field system of Mediterranean dry farming:**
i) **the arable or crop land was divided roughly into two sections:**
(1) one half was sewn [sowed] with winter wheat,
(2) while the other half lay fallow, i.e., uncultivated and at rest for that season
ii) **In the following year,**
(1) **the land that had lain fallow over the previous year,** and now had its fertility restored, was now sewn [sowed] with winter wheat,
(2) while the other section, after the wheat had been harvested, now lay uncultivated, was put into fallow for a year.
iii) **Thus the alternate succession for any piece of arable soil:** wheat-fallow-wheat-fallow
e) **The primitive plough, known as the *aratrum:*** was also unchanged from Roman times.
i) **It was a simple, cheap, and light instrument,** no more than a simple knife blade that cut lightly into the dry soil, without disturbing the underlying water table.
ii) **As the diagram on the screen shows,** the aratrum lightly tilled the soil in a criss-cross fashion, first up and down and then across.
f) **Animal power: the ox** [castrated bull]
i) **Oxen, one ox or two oxen,** were used to pull this plough; not much animal power was required for such a light plough and light sandy soils;
ii) **Forage or feeding the oxen was largely supplied by natural grasslands,** adjacent to or nearby the cultivated fields; and not much in the way of forage crops was required.
g) **layout of traditional Mediterranean/south European farms:** in simple hamlets, with scattered and sometimes even isolated individual plots of land, individually cultivated.
h) **Farming contrasts south and north:** This traditional Roman method of farming, especially for grain cultivation, is in sharp contrast to those much more complex systems practised in northern Europe, especially in the more manorialized areas of northern Europe.

3. North European Manorial Farming: The Three Field-System (or Three-Course Crop Rotations)

a) **The Three-Field System:** [7]
i) **This was a new and very different system that evolved in northern Europe:** Europe north of the Loire and Danube Rivers -- during early Carolingian times, from about the 8th century.
ii) **By the 12th century,** it had gradually though never totally displaced the traditional Roman methods of

[7] The best and most recent study is: Bruce Campbell, *English Seigniorial Agriculture, 1250 - 1450*, Cambridge Studies in Historical Geography no. 31 (Cambridge and New York: Cambridge University Press, 2000).

two-field farming.

b) **Climate and Soil Topography were again the decisive factors:**

i) **Only the northern climate had sufficient rainfall over both summer and winter seasons:**

i.e., to permit this more complex system of crop rotations

ii) **The system was also more commonly practised in the heavier clay zones of river valleys:** i.e., with alluvial soils, which in turn required an entirely different plough and a larger component of livestock farming.

c) **Under this three field system, or system of three-course crop rotations,**

i) **the various arable fields (or groups of furlongs)** of both the manorial (seigniorial) domain lands (demesne) and those the peasant village community were divided into three climatic zones,

ii) **According to Prof. Bruce Campbell,** in his recent book *English Seigniorial Agriculture* (2000),

> Nationally, the arable comprised 60 percent of all demesne land-use by value in the first half of the fourteenth century (Table 3.01) and on roughly one in three of all demesnes that proportion rose to three-quarters. The arable bias to demesne land-use was particularly marked within the ten FTC counties [Feeding the City of London], which had to feed both themselves and London. Crops and crop products accounted for 84 percent of gross agricultural output on demesnes within these counties c.1300, a proportion which is consistent with Gregory Clark's estimate that within lowland England 'arable crops accounted for 80 percent by value of total food output c.1300'.

iii) **These crops were so cultivated,** in seasonal rotations, as shown on the screen:

MODEL OF THREE-FIELD CROP ROTATION SYSTEM

Year	**FIELDS: A**	**FIELDS: B**	**FIELDS: C**
I	**FALL** (Winter) Wheat or Rye; and or Winter Barley (bere)	**SPRING** (Summer) Oats, Spring Barley Legumes (Peas and Beans)	**FALLOW** Resting Uncultivated (Double Ploughed) + Livestock grazing on natural grasses
II	**SPRING**	**FALLOW**	**FALL**
III	**FALLOW**	**FALL**	**SPRING**

(A) **Fall or Winter Fields:** consisted of grain crops that were planted in the Fall and harvested in the late Spring or early Summer: chiefly wheat and rye

(B) **Spring or Summer Fields:**

- fields that were planted with both grain and vegetable crops in the Spring and harvested in the Fall (Autumn):
- new crop rotations added in early-medieval northern Europe and merged with the Roman system to become a so-called Three Field system.

(C) **The Fallow Fields:**

- one third of the arable lands, lying at rest, uncultivated (each field every third year), to permit nature to restore fertility
- fertility restoration partially aided by the cultivation, the previous year (in the Spring-Summer crop cycle) of nitrogen-fixing legumes (peas and beans): to better explained in a moment, in the following section of this lecture
- with communal grazing of livestock on natural grasses growing on the fallow, i.e., in the year that this specific field was laying fallow, uncultivated.
- the importance of such grazing for fertility restoration also to be explained more fully, later.

d) **The importance of the new so-called Spring/ Summer Field:**

i) **provided new crops, both grains and legumes,** which were added to the traditional winter grains, wheat and rye.

iii) **Two new grains were oats and barley**:

(1) the oats were particularly important in serving as a foodstuff or fodder for livestock,

- especially for horses (more powerful and speedier than oxen),
- which could not be properly fed as draft animals in south (fodder spared for war horses);

(2) and barley served not only for bread and porridge but for brewing beer [south: wine].

iv) **the vegetables were green vegetables**: beans, peas, vetches: collectively called ‘pulses’.

(1) principally beans and peas, but also vetches,

(2) which are technically known also as *legumes*, because they added nitrogen, the most important of all natural fertilizers, to the soil.

(3) **source of the nitrogen:** it did not from the plants themselves but

- from the parasitic bacteria that lived on their roots: bacteria absorbed inorganic nitrogen from the air,
- which they transformed into organic nitrogen compounds (with carbon, oxygen, and hydrogen) that were fixed in the soil when the bacteria died and decomposed.

v) **It has been argued that the addition of these nitrogen-fixing legumes were responsible for making the Three Field System work,** in providing enough fertility for growing crops over two years.

(1) But the nitrogen-fixing properties of beans and peas were rather limited: especially in comparison to far more powerful nitrogen-fixing legumes that were introduced much later, in early-modern times: clover, sainfoin, and alfalfa (AKA lucerne) – to be seen in the second term

(2) and, furthermore, some agrarian historians maintain that some of this nitrogen was wasted in the following year, when the land lay fallow, as to be seen in the next Field C.

e) **Changes involved in the northern Fall/Winter Fields:**

i) **Wheat:** (winter wheat), please note, was virtually the only grain grown in the Mediterranean Winter Fields

ii) **Rye:** thus a northern crop, largely unknown in the South

(1) This was a much hardier crop grown by the Germanic and Slavic peoples in the north as their principal grain crop

(2) With the Roman introduction of wheat, rye was often mixed with wheat in the Fall sowing to produce a crop known (in French) as *maislin*

(3) For much of northern Europe, rye remained the principal grain (known as 'corn') until early modern times

(4) In much of medieval England, however, wheat became the principal winter grain crop.

iii) **Winter barley:** also introduced into northern three-field farming

(1) in England, commonly called *bere* or *berecorn*

(2) usually sown with wheat and or rye

(3) Bishop of Winchester's estates in 14th century: winter barley was much more common than rye.[1]

e) **Fallow Field (Field C)**: these were the fields, about one-third of the village arable, that were left uncultivated for one year, to rest and allow nature to recuperate and restore natural fertility.

i) **Livestock would graze on any natural grasses growing there,** on the fallow (as well as on the other arable lands, after harvesting -- graze on the stubble).

ii) **Livestock would also provide a dividend in form of manure,**

(1) but really only if they received some food elsewhere: and the most common custom was to bring the livestock on to the fallow at night, after they had grazed on pasture lands during the day

(2) Or in winter season, such livestock might be stall-fed with fodder crops during the day

(3) folding: was the more delicate term given to the way in which nocturnally grazing livestock deposited such manure on the fallow.

(4) thus a key point to be stressed: such livestock grazing and folding on the fallow would provide a net addition to fertility over the long run, only when the livestock had been fed from outside sources of forage crops.

(5) otherwise they merely recycled existing nitrogen.

(6) Importance of fallow-ploughing: usually the fallow was double-ploughed over the course of that year, both to:

- mix the manure with the soil (so that it did not leach away with rainfall)
- but also to suppress naturally growing weeds

[1] Manorial account records in the Beveridge Price and Wage History Collection, Archives of the British Library of Political and Economic Science (LSE), London. See also Campbell, *Seigniorial Agriculture*, chapter 5.

iii) **overall significance of this use of the fallow in northern Europe**: to effect and demonstrate the symbiotic nature of mixed husbandly, with both livestock and arable, which was largely absent from southern European agriculture.

f) **Crop Rotations** would thus occur over a three-year cycle, involving these three sets of fields.

i) **Thus each set of fields would receive a Fall-planted (winter) crop one year, a Spring-planted (summer) crop the next year, and lie fallow, at rest, the third year;** and thus each set of fields would produce two sets of crops every three years.

ii) **Note that I say sets of fields:** the actual physical lay-out of village arable lands was not necessarily in three distinct fields, but might be any number of fields, or groups of plough strips known as *furlongs*.

iii) **The term three-field system is thus somewhat misleading:** it really means three courses of seasonal crops (two plus fallow) rotated over all the furlongs, in often many fields.

g) **The northern plough: the heavy wheeled plough** (The ***carucca***)

i) **essential to this farming system, with heavy wet clay soils, was an entirely new type of plough, a very heavy plough with wheels:** fitted with both

(1) a large knife blade called the coulter, which cut deeply into the clay soils, creating a deep furrow;

(2) an attached wooden device called the mouldboard, which threw the soil from that furrow, so cut by the coulter, into a permanent ridge.

ii) **The combination of the high permanent ridge and deep furrow permitted adequate drainage of these heavy wet clay soils;** and they also formed the cultivation strips for the peasant community of the village (as will be explained in a moment).

iii) **So heavy was this plough,** and so arduous was the task of cutting through and ploughing these soils, that the plough had to be equipped not only with wheels but also a team of eight oxen (vs one or two in southern ploughing).

h) **Animal Power: the shift from oxen to horses:**

i) **From about the 10th or 11th centuries, the horse came to displace oxen in many parts of northern Europe:**

(1) because horses were stronger, faster, and hardier animals than oxen.

(2) Thus the contrast: a plough team of two horses yoked in tandem, vs. a team of eight oxen (four pairs of yoked oxen).

ii) **Technological Innovations:**

(1) The application of horse power was made possible by two innovations

- the iron horse-shoe and
- especially the fixed horse-collar (wood and leather), designed to go around the horse's neck without choking it.

(2) Thus, before the invention of the horse-collar it was not possible to yoke a horse to a heavy cart or plough,

(3) but that problem never applied to oxen, because of its different physique.

iii) **The disadvantage of horses:**

(1) they cost much more to breed, raise, and feed than oxen;

(2) and for that reason their displacement of oxen was very slow and never complete.

(i) **Livestock**: **oxen, horses, and sheep:** thus provided the most vital component of northern common or open field farming. Why were livestock so important?

i) **to provide power**, as just argued: to provide plough-teams (8 oxen, or 2 horses).

ii) **to provide manure** and restore nitrogen to the soils: especially if fed outside the arable fields

(1) as already noted, manure was a major requirement for fertilizing the arable fields.

(2) *folding*: allowing sheep and/or cattle to graze on the village Commons during the day, and then be penned into the harvested arable-fields at night: to deposit their manure.

iii) **to provide auxiliary sources of food, especially protein**: in the form of meat and dairy products -- milk, butter, cheese.

iv) **finally, to provide raw materials for widespread rural manufacturing**:

(1) above all: wool from sheep,

(2) hides: leather from both sheep and cattle,

(3) and bone: a most important material serving many functions of modern metals and plastics.

j) Importance of Livestock in European economic development: large domesticated animals

i) **for Europe as a whole (continent), its ultimate economic development and economic supremacy was fundamentally based on livestock:**

ii) **To repeat in what respects we find this vital importance of livestock, in the form of large domestic animals:** horses, cattle (oxen, bulls, and cows), sheep, donkeys, goats, pigs

(1) Military power: in terms of war horses, so vital to the economics of feudalism, especially in northern Europe

(2) Power of draft-animals: oxen and horses, in pulling ploughs and carts, etc.

(3) Fertilizers: in the form of animal manure (from all such animals

(4) High protein food: to supplement carbohydrates in a largely grain based economy

- in terms, especially, of meat: from most of these animals (if not donkeys)
- milk, butter, and cheese: especially from cattle, but also sheep and goats

(5) Textiles and clothing: from sheep's wool, goat-hair

(6) Leather goods: from animal hides

(7) Parchment (before widespread use of paper): from sheepskins

(8) Bone (from all such animals): as materials for tools, implements, cooking utensils

iii) **even southern, Mediterranean Europe, had a greater relative supply of these animals,** in various combinations, than did most other regions of the world.

iv) **See Jared Diamond's essential book:** *Guns, Germs, and Steel* - which might better be titled as *Horses, Germs, Steel, and Guns,* probably the most important book you can read for this course:[2]

(1) He contends, that of the many physical advantages that allowed Europe to develop to become the economically and militarily predominant continent, the most important was its livestock component

[2] Jared M. Diamond, *Guns, Germs, and Steel : The Fates of Human Societies* (New York : W. W. Norton & Company, 1999).

(2) That is, no other region of the world had a comparable set and economically advantageous combination of these large domesticated animals

- for both warfare – i.e, the vital importance of horses.
- and for agriculture: horses, oxen (with bulls and cows and calves), sheep, donkeys, goats

(3) Consider that sub-Saharan Africa's indigenous animals, though certainly large, were too fierce to be domesticated: lions, rhinoceros, hippopotamus, giraffes

(4) The Americas, before the 16th century arrival of Europeans, had no such animals,

- except for llama, a poor substitute for horses and cattle
- the Spanish, of course, necessarily introduced horses (many of which became wild, and migrated throughout North America, at least)

(5) Asia did have horses, and also buffaloes and camels, and elephants

- but not in the same relative supply and not used or usable in as economically advantageous manner as Europe's large domesticated animals.
- water buffalos and elephants can hardly be compared in efficiency to cattle

(6) **Most important:** no other region outside of Europe managed to integrate the use of both arable crops and livestock raising in such an effective and fully symbiotic manner: what we call animal husbandry or mixed farming.

(7) Jared Diamond's other key point about the importance of livestock in the European economy:

- that so many diseases were transmitted by livestock, or by bacteria and other parasites living symbiotically with livestock
- that gave humans (Europeans) immunity to a wide variety of harmful diseases that killed other peoples without such immunities: especially when Europeans introduced these diseases into their lands (especially in the Americas).

v) **That England had such a large livestock component in her agriculture –**

(1) especially sheep, but also cattle and horses – indeed much larger than found in French, Italian, or even German agriculture,

(2) that goes a long way in explaining many of England's potential economic advantages in late-medieval and early-modern Europe.

vi) **Remember:** -- and this point is crucial -- Mediterranean dry farming with two-field systems had inadequate grasslands and supplies of fodder crops to sustain as large a livestock component in their agriculture as did northern zones with wet clay soils.

vii) **The important north-south European distinction:**

(1) Northern European agriculture was characterized largely by mixed animal husbandry:

- i.e., a system that combined livestock raising with arable (grain farming)
- and that meant a symbiotic relationship between the two, with important implications for a higher level of agricultural productivity

(2) Southern European, Mediterranean agriculture, in contrast:

- had a far smaller livestock component

- principally because of inadequate supplies of fodder crops and grasslands
- also: the arable and livestock sectors were operated separately
- **livestock:** raised by itinerant grazing of herds and flocks over long distances (comparable to the American West, in which arable and livestock raising were separate).
- that meant that southern agriculture largely lacked the symbiotic relationship of livestock with arable found throughout much of northern Europe.

k) **The economic advantages of northern three-field farming systems** over Mediterranean dry farming can be seen, or reflected in part, in the following table on the changing European population during the medieval era:

i) the northern European system combining the three-field system (as opposed to a two-field system) and the use of livestock – symbiotic use of livestock, as integral feature of these arable field systems – both permitted and promoted a much more rapid growth of rural population than did

ii) the southern two-field system, which kept arable and livestock apart, and was unable to sustain the same levels of livestock herds and flocks.

iii) note that the differences between the two systems, north and south involve:

(1) features of climate and topography

(2) the socio-economic features of feudalism and manorialism, deeply entrenched in the north, but only imperfectly implanted in the south.

EUROPEAN POPULATION DISTRIBUTIONS, 1000 - 1450 A.D.

Area	1000 A.D.	1320 A.D.	1450 A.D.
Mediterranean: Greece, Balkans, Italy, Iberia (Spain and Portugal)	17.0 (44%)	25.0 (34%)	19.0 (38%)
West-Central: Low Countries, France, Germany, Scandinavia, British Isles	12 (31%)	35.5 (48%)	22.5 (45%)
Eastern Europe: Russia, Poland-Lithuania, Hungary, Bohemia	9.5 (25%)	13.0 (18%)	9.5 (19%)
TOTALS:	**38.5**	**73.5**	**51**

Source: J.C. Russell, 'Population in Europe, 500 - 1500', in Carlo Cipolla, ed., *Fontana Economic History of Europe*, Vol. I: *The Middle Ages, 900-1500* (London, 1972), Table 1, p. 19.

4. The 'Common' or 'Open Field' System of Manorial Farming

a) **Common or Open Field Farming:** was a system of farming that pertained to and prevailed in only northern Europe :

i) **from the British Isles in the West, across northern Europe to Russia (up to the Ural Mountains), in the East:** northern Europe is here defined as those regions north of the Loire River (France) and the Danube (Central Europe), flowing into the Black Sea.

ii) **from approximately the 12th to 19th centuries,** in much of northern Europe, but not all of it.

b) **Geographic limitations were partly physical, partly political**:

i) **physical reasons**: the climatic-topographical zone of the three-field system:

(1) This system of communal farming was evidently never or very rarely practised in the southern Mediterranean zone of two-field dry farming,

(2) but only in those wetter northern zones capable of sustaining a three-field system

(3) At the risk of creating undue confusion, however, let me remind you once more that not all of the northern wet zones chose to practise a three-field or three-course crop rotation system;

(4) and this form of communal farming can be also be found in northern areas that had continued to follow the two-field system (even if the three-field system did come to be predominant).

(5) Communal open-field farming also seems to have been practised chiefly in those areas that engaged in so-called mixed husbandry, combining arable farming and livestock raising in about equal proportions.

(6) That again required wet soils with sufficient grasslands or fodder crops.

ii) **political-cultural reasons**:

(1) **the manorial connection:** open or common field farming seems to be closely associated with feudal manorialism, whose heartland, as I stressed earlier, was in northern Europe -- especially the region between the Loire and the Rhine -- and which spread only imperfectly in south.

(2) In southern, Mediterranean Europe, as I also stressed earlier, both Roman civil law and Roman customs or traditions, on the one hand, and the survival of towns and their communal organizations still remained sufficiently powerful in the medieval era to protect traditional modes of farming and rural society from the full imposition of feudal manorialism.

(3) In those regions of northern Europe, where feudal manorialism became more powerful, communal or open-field peasant may well have developed, as one historian (Robert Brenner) has suggested, as a defensive mechanism by which peasant villages protected themselves against further feudal or manorial encroachments.

(4) Indeed, I will try to demonstrate that under communal open-field farming it was precisely the peasant village and not the manorial lord that collectively determined the modes of farming:

- the lay-out of furlongs (plough strips) and the three or more open fields,
- the seasonal crop rotations in the Open Fields: Fall, Spring, Fallow
- the balance between arable and pasture, and
- and thus the regulation of communal grazing of village livestock on both pasture or grasslands and the post-harvest arable Open Fields.

(5) The superior strength of open-field village farming was all the easier to achieve when,

- as so often happened, a feudal manor embraced parts, but only parts, of several villages,
- while neighbouring manors absorbed the other parts of those villages;
- and when a village was supposed to owe allegiance to two different manorial masters, it was often easier to ignore both.

f) **The Communal Features of Open Field or Common Field Farming, and Their Consequences**:

i) **This form of three-course crop rotation was usually undertaken by a communal system of farming, communally determined:** both communal arable farming and communal grazing on both the pasture or waste lands and on the arable fields, which were necessarily open or unfenced. Why? What was involved?

ii) **Communal grazing:** on both pasture and arable lands:

(1) That meant first that the entire livestock herd, of the whole village community, grazed on lands together, rather than separate grazing by each peasant family in individual segregated flocks on their own family holdings.

(2) Communal grazing on large open fields was much more land efficient than grazing the livestock separately on small plots, where the livestock would necessarily have been tethered (tied to a stake), to prevent trespassing on neighbouring lands.

(3) The village livestock herd (sheep and cattle) were communally grazed

- not only on the pasture and waste lands, but also on the arable fields themselves after they had been harvested –
- i.e., feeding on the post-harvest stubble; and grazing on the fallow lands –
- in particular, feeding on naturally growing grasses on the fallow lands.

(4) With population growth, grazing the livestock on the arable fields became more and more necessary as the arable fields expanded at expense of the common pasture,

- i.e., new arable was normally carved out of pasture, rather than waste lands,
- creating problems in finding sufficient food for the livestock.

(5) Communal grazing of the livestock, sheep and cattle, on these arable lands was important

- in helping to restore fertility to the soil:
- i.e., in supplying extra manure to these lands (in what is called ‘folding’);
- but, as stressed earlier, net additions to soil fertility came only from feeding the livestock with extra fodder supplied from outside these arable fields: from pasture lands, stall feeding.

(6) Consider the following table on the changing ratios between arable and pasture, and their consequences for total output.

(7) You will note that an expansion of the arable, at the expense of pasture or grass lands, will, after a certain point, result in reduced total output.

The effects of changing relative areas of grass (livestock-pasture) and arable (grain crops) on the output of a 100-acre farm: in bushels per acre (with livestock output equivalents)

Basic Assumption: The Farm Operates on a Traditional Three-Field System with 2/3 in Crops and 1/3 Fallow (Uncultivated, Land at Rest) each Year

Grass Area in Acres	Grain Area in Acres	Fallow Area (at Rest): Acres	Manure Tons per Acre Arable	Grain Yield: Bu. per Acre	Total Grain Output Bu.	Stock Output in Equiv Bu.*	TOTAL OUT-PUT IN BU.
100	0.0	0.0				1,000	1,000
80	13.3	6.7	>10.0	27.5	366	800	1,166
77	**15.3**	**7.7**	**10.0**	**27.5**	**421**	**770**	**1,191**
60	26.7	13.3	4.5	16.5	441	600	1,041
40	40.0	20	2.0	11.5	460	400	860
20	53.3	26.7	0.7	8.9	474	200	674
0	66.7	33.3	0.0	7.5	500	0	500

* **Assumption:** That the output of livestock products is equivalent to 10 bushels of grain per acre.

Source: Robert Shiel, 'Improving Soil Fertility in the Pre-Fertiliser Era', in Bruce M. S. Campbell and Mark Overton, eds., *Land, Labour, and Livestock: Historical Studies in European Agricultural Productivity* (Manchester and New York, 1991), p. 71.

iii) **Thus Open Unfenced Arable Fields**:

(1) Consequently the individual tenancy holdings were not fenced off -- obviously fencing would have prevented this type of livestock grazing.

(2) More reasons for not fencing individual holdings will be seen in the next component of common field farming.

iv) **Communal Ploughing**:

(1) Communal ploughing was a common feature of much northern open-field farming,

- especially on heavy, wet, river-valley soils that required very large and costly ploughs
- and a large plough team, of eight oxen or two or more horses, as previously noted.

(2) Such a plough and plough team were together far too large a capital investment for the typical peasant family;

(3) and thus these plough teams thus often required the pooling of both capital and labour from several peasant families.

v) **Communally Determined Crop Rotations by a village council**:

(1) the crop rotations were applied to the village arable lands as a whole (at least those of the peasant tenants) and not to individual holdings.

(2) A village council, consisting of elders of the leading peasant families, servile and free, thus determined the division of lands between livestock and arable, and determined also most of the crops to be grown, where, in what order.

(3) Obviously totally independent or individual farming, with individual initiatives on crop cultivation, could not be permitted with communally organized farming:

(4) especially so once the village decided to allow livestock grazing on harvested fields.
(5) Livestock could not be allowed on the fields until harvesting completed;
(6) that meant a common harvest with the same type of crops (winter, summer) in each field.
(7) But within each field devoted to either winter or summer crops, there could still be a considerable variety: e.g.,

- wheat and rye or even winter barley in the Fall-winter fields; and
- oats, barley, peas, beans, vetches in the Spring-summer fields

vi) **Scattering of strips that formed the peasant tenancies:**
(1) The peasant tenancies in open fields were not constructed as separate compact blocks of land:

- instead, the peasant tenancies were constituted as a collection of strips that were scattered and intermingled with those of other tenants,
- and that was true for each of the three fields or agricultural zones.

(2) Indeed, sometimes we find that tenancy strips were intermixed with domain holdings.
(3) These strips were those created, it is generally argued, by the northern mode of ploughing, with the heavy-wheeled ox-drawn plough, which produced long, straight and permanent ridges and furrows that ran the length of the field.

g) **The Scattering of Arable Strips in Open Fields: Why were Plough Strips Scattered?**

Let us discuss various and often conflicting theories: the first set of theories represent the older, more socially oriented theories; and the other set reflect modern, more economically oriented theories. But all these theories do combine economic and social elements in explaining the scattering of strips within the great open arable fields.

i) **Communal Land Clearing**: perhaps the oldest theory was that land-clearing was necessarily communal,

- so that the strips were apportioned according to each family's contribution;
- scattering thus reflects piecemeal addition of new lands.

ii) **Communal Peasant Equality**:
(1) by equal subdivision of the land was certainly a popular theory in the 19th century -- an idea of primitive peasant communism;
(2) but virtually no one supports that theory today, especially because it is contradicted by so much factual evidence on gross inequalities in peasant land distribution.
iii) **Communal Ploughing: The plough theory** is related to this communal land-clearing theory, and for many still the most popular theory:
(1) namely, that ploughing was also necessarily communal, for the reasons of heavy capital investment in such equipment, already mentioned: too much for any one peasant family
(2) and thus the conclusion that strips were handed out to each family for each field according to each family's contribution to the plough team and ploughing of each field.
(3) That thesis goes back to the later 19th century (Seebohm, etc.);
(4) and in this century such eminent historians as Marc Bloch and Michael Postan have vigorously maintained this theory.

(5) But other critics maintain the following contradictory notions:

- that scattering precedes the widespread adoption of the heavy-wheeled plough,
- while others contend that it developed long after the diffusion of this plough –
- take your pick.

(6) Some also deny that all ploughing was communal.

- While perhaps some wealthy peasant families did their own ploughing, certainly many peasants, if not most peasants, were too poor to own outright an entire plough team,
- and so they all depended on communal ploughing.

(7) In any event, communal ploughing of all fields of one seasonal type of crops at a time made the best use of labour; but that still does not explain the full extent of scattering and intermingling.

iv) **The Joan Thirsk thesis: Subdivision of holdings by partible inheritance, with population growth**:

(1) i.e., equal subdivision of peasant tenancies by inheritance, equally amongst all sons.

(2) We shall encounter a related Thirsk thesis, again also based on the effects of population growth, when we come to Enclosure Movement in Tudor England -- and the destruction of Common Fields![3]

(3) Weakness of theory for England is that most of the chief zone with Common Fields -- in the Midlands -- practised impartible inheritance, whereby the holding passed only to the eldest son.

(4) The theory may explain subdivisions (where partible inheritance was practised)

(5) but it does not explain scattering and interspersing, except perhaps in conjunction with the following theory:

v) **The development of a peasant land market (though technically illegal)**:

(1) private buying, selling, and trading of holdings.

(2) That may also explain some further scattering and intermingling, especially with population growth.

vi) **Crop diversification:**

(1) A subsidiary though not necessarily alternative thesis that can also be found in March Bloch: i.e., to provide peasant families with the widest possible variety of crops: to give peasants access to each of the various crops being cultivated each year; and to share proportionally if not equally in the fallow.

(2) Obviously if the peasant's tenancy was concentrated in just one field, peasant family would starve every third year, when that particular field was lying fallow (unless the peasants had some remarkably effective system of both grain storage, lending, and marketing).

(3) But that argument does not explain scattering within each of the fields, which is the primary concern here; and for this we turn to a more modern explanation, as an improvement on this thesis.

vii) **The McCloskey Thesis: Risk Sharing and Risk Reduction by economic diversification:**

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[3] See Joan Thirsk, 'The Common Fields', *Past and Present*, no. 29 (Dec. 1964), 3-25; W.O. Ault, *Open-Field Husbandry and the Village Community: A Study of Agrarian By-Laws in Medieval England* (Transactions of the American Philosophical Society, new series, vol. 55, Philadelphia, 1965); Jan Z. Titow, 'Medieval England and the Open-Field System', *Past and Present*, no. 32 (1966), 86-102 (The first major attack on Thirsk); Joan Thirsk, 'The Origin of the Common Fields', *Past and Present*, no. 33 (1966), 142-47. Her strong reply to Titow.

(1) This thesis is an elaboration of the previous thesis, indeed using econometrics, by the economist Donald (now Deirdre) McCloskey, who argued that the crucial issue is not the distant, murky origins of the common fields, but why they persisted so long in Europe, indeed up to modern times in many places.[4]

(2) His/her core argument is that peasant community deliberately, by communal consent, undertook both strip-scattering and crop diversification together as a concerted planned policy to minimize risk: i.e., from seasonal crop failures, from insects and rodents, from frost, and from patches of bad soils (too acidic, too alkaline).

(3) Risks were reduced by diversifying as much as possible each peasant family's access to both soils -- which could vary considerably within one given field -- and crops;

(4) and more than one crop could be grown in a given field.

(5) McCloskey thus draws the modern parallel of diversification of assets in an investment portfolio.

(6) Consider, above all, that open-field peasant farming was not a profit-maximizing community; and so even if strip-scattering meant certain inefficiencies and lower aggregate outputs (McCloskey estimates 10% - 13% loss), most peasants still preferred minimal risk and added security to maximum output: as modern investors might also prefer in diversifying securities in an investment portfolio, while accepting lower yields.

viii) **The Dahlman Thesis on protecting communal livestock raising: Strip-Scattering to ensure that livestock raising would remain large-scale, land-extensive, and thus communal:** [5]

(1) Carl Dahlman, another economist (rather than an historian), noted that open-field communal farming predominates in northern zones of mixed husbandry, i.e., with about an equal mix of farming devoted to livestock raising and to arable crop production.

(2) His thesis is certainly one of the most compelling: by contrasting the economics of land-extensive livestock farming with those of land-intensive arable farming;

(3) and Dahlman thus saw this system as a means of reconciling apparent economic conflicts between these two ingredients.

(4) Communal grazing of livestock required economies of large scale, with land-extensive farming: i.e., large fields for the most efficient grazing.

(5) Population growth forced an expansion of the arable at the expense of natural grazing and pasture lands, thus requiring communal grazing on the post-harvest stubble of arable fields.

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[4] Donald McCloskey, 'The Persistence of English Common Fields', in William N. Parker and Eric L. Jones, eds., *European Peasants and Their Markets: Essays in Agrarian Economic History* (Princeton, 1975), pp. 93-120. See also the following essays: Richard C. Hoffmann, 'Medieval Origins of the Common Fields', pp. 23-71; D.N. McCloskey, 'The Economics of Enclosure: A Market Analysis', pp. 123-60.

[5] Carl J. Dahlman, *The Open Field System and Beyond: A Property Rights Analysis of an Economic Institution* (Cambridge, 1980). See chapter 2, 'Theories of the Open Field System', pp. 16-64; and chapter 4, 'The Economics of Commons, Open Fields, and Scattered Strips', pp. 93-145. On p. 137: '...scattering constitutes the cheapest method know for combining the private ownership [or use] of the arable with the collective use of for gazing. We have argued here that the scattering achieves this by decreasing the incentives for private decision making. Scattering makes it less desirable for the farmer to break on his own, by raising the costs and by decreasing the benefits for him to do so. What the scattering thus achieves is to change the incentives'.

(6) With small independent plots, farmers could graze their livestock only by tethering (to prevent the animals from wandering on to neighbouring plots, eating their crops), with considerable inefficiencies involved – indeed tethering was largely impractical. [6]

(7) Arable farming, however, could often be undertaken more productively with small individual plots [though this is not proven in his model];

(8) but that arable farming still requires livestock, especially manure, which in turn dictates communal grazing.

(9) Now consider, furthermore, that if some peasants had all of their holdings concentrated in one block of land,

- they would soon demand that their land be withdrawn from communal crop rotations and the open-field system, so that they could work them individually.
- and they would attempt to carve out portions of the village commons to add to their own arable.

(10) Hence it was necessary to discourage peasant individualism and the farming of individual plots in order to protect communal livestock grazing.

(11) Indeed, precisely those features of individual peasant farming, leading to the destruction of communal farming, did happen despite all efforts to the contrary, with the development of the later enclosure movement, in Tudor-Stuart England.

h) **Private Property Rights in Medieval Manorial- Communal Farming:**

i) **communal farming** in grazing, crop rotations, ploughing and harvesting was, to be sure, the normal situation in medieval northern manorial farming:

(1) that feature, along with scattering of strips, prevented individual farming in the strictly modern sense;

(2) but contrary to many textbooks, it nevertheless did not prevent many aspects of individual farming with such confines of common-field or open-field farming, which must be pointed out here.

ii) **Private elements**: consider the following elements of peasant individualism that distinguish medieval open-field from modern-day collective farming (as practised in the former USSR – still surviving in parts of Russia, Belarus, and Ukraine today -- or in Israeli kibbutzim):

(1) This system did permit some individual choice permitted in crop selections, so long as peasants did not violate the seasonal and biological rotations.

- in Fall-Winter fields: could choose to grow wheat, or rye, or maislin (mixture of the two), or even winter barley (bere)
- in Spring-Summer fields: could choose to growth barley, or oats, or legumes (peas, beans)

(2) the crops and other products of the land and livestock still belonged to the individual peasant tenant, not to the village community.

(3) Indeed much of the final cultivation and crop tending was individual.

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[6] According to some authorities, 'tethering was largely confined to horses, with elaborate restrictions even for these; ... oxen were seldom tethered and sheep could not be. Tethering, moreover, would result in either inefficient grazing of the plots or repeated re-tetherings'. Donald McCloskey, 'Persistence of Common Fields', in Parker and Jones, eds., *European Peasants and their Markets* (1975), p. 84; Ault, *Open Field Farming in Medieval England* (1972), pp. 43-44.

(4) Individual peasant (or family) responsibility to pay rent, tithes (to church), taxes: not a communal liability (as in 19th-century Russian peasant farming)

(5) private ownership of the livestock, tools, seeds: even ploughs (some owned outright by wealthier peasant families)

(6) Relative freedom, by later Middle Ages, to buy, sell, or trade properties: despite being against manorial customs and feudal legal codes.

iii) **These elements of private enterprise within medieval communal manorial farming** were actually the seeds that later germinated in Tudor enclosures to destroy communal farming.

(i) **Open Field Farming and Manorialism: Possible connections, with conflicting views:**

(i) Open field farming, as I also noted, is found almost completely and only in those northern regions that had been subjected to feudal manorialism;

ii) and perhaps feudal landlords had sought to extend their powers over the most productive agricultural lands, those that engaged in mixed husbandry.

iii) **The Campbell Thesis on Open Field-Farming as an Aspect of Manorial Exploitation and use of dependent labour:** Bruce Campbell, a very eminent British agrarian historian, has argued that:[7]

(1) manorial lords had a direct interest in using the labour of their dependent tenants as efficiently as possible, in ensuring that sufficient labour supplies were available to work their own demesne lands;

(2) that 'imposition of the regular common field system had precisely this effect: by pooling labour resources and [by] arranging for certain activities to be carried out in common, it facilitated the release of labour to work on the lord's demesne.

(3) 'Division of the demesne into strips located in the common fields furthered this arrangement'

- 'The whole scheme may therefore have originated with the lord, tenants having no alternative to comply'.
- 'On the other hand, where labour was relatively abundant it would have been unnecessary to go to these lengths to secure the necessary labour to work the demesne....'; and he points out that densely populated East Anglia and the SE Home Counties did not practise regulated Open-Field farming.

iv) **Objections to this view:**

(1) Open-field farming is also found in equally densely populated regions of the Midlands

(2) Campbell admits that this view makes best sense in those areas in which the peasant village and manor were coterminous;

(3) but many examples of regular Open Fields can be found in villages with shared manorial jurisdictions

v) **The Brenner view:**

(1) an American Marxist historian, who has written extensively on medieval and early modern serfdom and lordships in Europe, west and east:

[7] Bruce Campbell, 'Commonfield Origins: The Regional Dimension', in Trevor Rowley, ed., *The Orgins of Open-Field Agriculture* (London, 1981), pp. 112-29.

(2) Robert Brenner offered a quite contrary view to explain the evident connection between feudal manorialism and Open Field farming in medieval Europe.[8]

- that open field farming with strip-scattering was designed by the peasant village community itself to strengthen communal power and communal resistance against further manorial encroachments: that Open Field farming promoted and protected defensive social cohesion amongst the peasantry in manorial villages.
- I have suggested this thesis several times now; and you can read further on this topic in the reading list for the essay topic on serfdom (particularly on the 'Brenner Debate').

vi) **Summary of the Crucial Elements in Open-Field Farming (with scattered strips)**

(1) Population pressures that led to and required regulated communal grazing (pasture and arable)

(2) Mixed husbandry: the economic and social integration of arable (crops) and livestock

(3) Communal ploughing (communal sharing of livestock in ploughing)

(4) Crop diversification and risk aversion with large variances in soil qualities

(5) Communal protection of the village and resistance to manorial exploitation

E. Economic Significance of Manorial Open-Field Farming (with Peasant Serfdom): as Barriers to Economic Development

Let us consider this proposition in terms of an economic model:

(1) in which we consider the potential impact of certain variables in the absence of countervailing or modifying forces, without assuming that this model is necessarily true for any given time and place.

(2) So potentially, therefore, how might the combination of manorialism, serfdom, and open-field farming have served as or provided barriers to innovation, efficiency, and economic growth?

1. Peasant Conservatism as a Barrier to Agricultural Innovation and Change:

a) **a barrier to agricultural innovations or more productive changes:** in hindering if not necessarily in preventing the introduction of new crops, new crop rotations, or other new farming techniques or equipment.

i) **Change, however, was by no means impossible;** and indeed the communal adoption of a three field system in place of two field is the best example of such changes.

ii) **But, when such major changes were adopted,**

(1) it was generally only after those changes had long proved successful elsewhere -- especially on domain lands of large estates (ecclesiastical perhaps more often than lay estates).

(2) Even then the successful transmission of successful new ideas took long time.

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[8] Robert Brenner, 'Agrarian Class Structure and Economic Development in Pre-Industrial Europe', *Past and Present*, no. 70 (February 1976), pp. 30-74, reprinted in T. H. Aston and C. H. E. Philpin, eds., *The Brenner Debate: Agrarian Class Structure and Economic Development in Pre-Industrial Europe* (Cambridge, 1985), pp. 10 - 63. See also his reply to his many critics: Robert Brenner, 'Agrarian Class Structure and Economic Development in Pre-Industrial Europe: The Agrarian Roots of European Capitalism', *Past and Present*, no. 97 (Nov. l982), 16-113.

iii) **Remember above all that communal peasant farming was a perfectly rational form of collective risk aversion;** and for this see the bibliography on peasant serfdom and manorial agriculture.

b) **Reasons for Risk Aversions and Resistance to Change**:

i) **The chronic, widespread, and centuries long risks of crop failures and famines:**

(1) With essentially a form of subsistence farming, with very low outputs, there was always a danger of crop failures (with bad weather), and thus famine;

(2) Therefore, it was perfectly rational for peasants to fear the risk of failure from changes that might mean starvation and death, for much of the community

ii) **Communal Village Suspicion that individual gains would take place at the expense of the rest of the peasant village community:**

(1) the fear that some would gain benefits from even productive changes at the expense of the rest of the village community;

(2) that most of any benefits produced would go to one's neighbours.

iii) **For most peasants, there was little incentive to try improved methods on any individual basis:** because these changes generally required village cooperation, not forthcoming for the reasons already elucidated.

c) **The so-called 'neighbourhood' effect in communal farming:**

i) that there was little incentive to improve productivity in communal farming, if one's neighbours did not take proper care of their own strips,

ii) thus allowing poor drainage, weeds, crop diseases, etc., to harm the cultivation on one's own and on neighbouring strips.

2. **<u>Virtual Absence of Centralized Control over the Village Economy: by or from the Manorial Lord</u>: a variety of reasons to explain why feudal lords failed to exercise full control:**

a) **feudal social-psychology not conductive to estate management:**

i) **In France, and indeed for much of the west European continent,** manorial lords had little interest in running their estates, because their feudal, military, or ecclesiastical functions in society took precedence.

(1) Feudal warriors or church leaders were hardly profit maximizers, by their feudal social and cultural conditioning.

(2) Their chief concern was to have a reasonably steady flow of income to support their feudal military and social functions.

(3) Any estate management, including managing the domain (demesne) lands, was generally left to heir bailiffs, who were often corrupt or incompetent.

ii) **But this is not entirely a satisfactory explanation, especially for England,** where many manorial lords did operate their domain lands as commercial enterprises, even in the 13th century, as noted earlier.

b) **Physical geography and the physical lay-out of many feudal manors:** provide a better answer:

i) **in many cases, individual manors were not located in unified villages,** but as scattered portions of several villages:

(1) from piecemeal conquests, from inheritances (subdivided holdings), from sales, purchases, or trades, etc.
(2) If the manor was divided amongst two or more village communities, imposition of centralized manorial rule would have been impossible.

ii) **As suggested earlier,** open-field village farming developed precisely to prevent manorial control and full direction over the economic life of the village, beyond the extraction of rents.

iii) **Indeed, the intermixture of domain lands with village peasant tenancy lands:** proved to be, for many manorial lords, a much simpler solution to estate management.

iv) **Thus the village communal council of elders,** rather than manorial officials, determined the practical economics of the village agrarian community: in, as noted before, lay-out of fields, communal grazing, communal crop rotations, choice of crops and livestock, etc.

c) **Geographic dispersion of feudal fiefs:** especially in England

i) **if not so much for the lower echelon of knights,** certainly for the barons and higher echelons of the English feudal nobility, their land holdings were in the form of many scattered fiefs, each with many scattered manors, dispersed across many counties of England (and also in Welsh, Scottish, and Irish counties).

ii) **for such members of the feudal nobility:**

(1) individual estate management was a physical and managerial impossibility

(2) estate management had necessarily to be delegated to reeves and bailiffs and other officials, whose interests might well diverge from those of their feudal masters

3. **Low productivity of manorial peasant farming**:

Lower than the optimal potential that could be achieved with individual holdings.

a) **Resistance to Change**: for all the reasons just mentioned.

b) **Wastage in tending scattered strips**:

i) **Lower productivity with scattered strips than was possible with unified plots using existing techniques:** in particular from

(1) waste labour involved in tending scattered strips,

(2) labour time lost in walking from strip to strip (though very limited if a day's labour spent one long plough strip);

ii) **wastage of land:** from the lost use of the land-balks involved in separating the strips of holdings.

c) **But inefficiencies of open-field farming are only relative, and often exaggerated:**

i) **Northern communal farming was more productive than most Mediterranean dry-farming,** with individual plots and scattered hamlets.

ii) **Communal farming provided a trade-off:** by which the community accepted a lower total output for the village (and the manorial lord) to distribute risk amongst the village.

d) **Serfdom and Arbitrary servile exactions**:

i) **Lower productivity from those small servile peasants, who were more subject to arbitrary exploitation by the manorial lord:** to arbitrary labour services and dues.

ii) **There was little incentive to work harder even with existing techniques and organization,**

(1) especially if the greater part of any surplus would be expropriated by the landlord.
(2) furthermore, most serfs had a strong incentive to shirk when performing labour services on the lord's domain: i.e., in order to conserve energies for working his own tenancy holdings
iii) **But, as emphasized earlier, the degree of peasant exploitation was both limited and diminishing in western Europe:** for late-medieval and early-modern England, that such exploitation had virtually disappeared by the end of the Middle Ages;
iv) **Also, as I shall show later,** paradoxically, while serfdom was waning in the West, it was increasing, and with growing harshness in eastern Europe, from the 15th to 17th centuries.

4. **Manorialism, Peasant Immobility, and Disguised Unemployment**:
a) **restricted mobility and inelastic labour supplies:**
i) **the relative immobility or restricted mobility of peasants,** especially of the servile peasants, those bound to either the manorial lord or to his estate.
ii) **but also the more general immobility of freer peasants,** who were equally bound by family ties in a system of communal village cultivation.
iii) **That relative immobility of peasants therefore meant inelastic labour supplies,** potentially raising wage rates for alternative forms of employment (thus denied a ready supply of free labour.
b) **Disguised unemployment:**
i) **such peasant immobility also meant disguised unemployment in some villages or districts,** as the counterpart to labour scarcities in others.
ii) **Indeed,** one may argue that communal open-field farming with tenancies in form of scattered strips was well designed to accommodate disguised unemployment (socially desirable from community viewpoint).
c) **But once more I reiterate that peasant immobility was only relative;** and this does not mean that there was any absence of rural migration.

5. **Manorial Economy: Relatively Unresponsive to the Forces of the Market Economy**
i.e, that land and labour were not subject to laws of supply and demand and market pricing:
a) **in that manorial lands, both domain and peasant, were not freely marketable:**
i) **After all most manor were supposed to be a part of feudal fiefs:** which, by legal definition, were held on condition of rendering military or other services.
ii) **The peasant tenancies themselves were also held on condition of rendering services,** including some military service by free peasants, and other payments to the manorial lord.
iii) **Such services could not be guaranteed:** if the holdings were subdivided and alienated by sale and trades, etc.
c) **Manorial and peasant land markets did, however, develop, by the later medieval era:**
i) **In actual historical fact,** both manorial estates and peasant tenancies were often sold and traded, if illegally; and such lands did become marketable.

ii) **But because such transactions were illegal,** under feudal and some civil law, such feudal lands were still not freely marketable commodities, and would not be until these feudal and manorial ties to land were broken;
iii) **that significantly raised transaction costs:** for medieval land markets.

d) **Mortaging:**

i) **for these reasons it was very difficult for peasant, even free peasants, to mortgage their holdings:** i.e., to borrow money or raise capital on the security of lands so pledged for the mortgage.

ii) **feudal lords, however, did find it much easier to mortgage their estates,** or more properly the fruits or incomes from their estates

iii) **Indeed, mortgages develop in 12th and 13th century France when feudal nobles,** about to embark on the Crusades, raised money for those Crusades and their military ventures by thus mortgaging their estates.[9]

6. **Unproductive Use of the Manorial Surplus (Rents)**:

a) **Inefficient Allocation of Resources: of land, labour, and capital**

i) **unproductive in that land, labour, and capital were,** in all these respects, not allocated efficiently according to the laws of supply and demand and market pricing.

ii) **as noted earlier, the allocation and use of both land and labour were tied to feudal concepts of reward for feudal service**: and markets that did develop in both land and labour were subject to severe constrain and high transaction costs.

b) **Virtual or Relative Absence of a social psychology to invest and reinvest profits, rents, or other forms of the manorial surplus productively:**

i) **see all the reason discussed above,** in the previous section, on the feudal ethos and mentality

ii) **Conspicuous consumption: on the part of the feudal landholding nobility, secular and ecclesiastical**

(1) either sterile, unproductive investments in castles, chateaux, resplendent buildings, churches

(2) conspicuous consumption in the physical attributes of nobility: in terms of ostentatious display, with fine textile and jewellery & objets d'art; in food and drink; in games, hunts, theatrical displays

iii) **Thus rational estate management and profit maximization was so often, in much of western Europe, an unattainable goal,** even if desired, for much of the medieval feudal landholding aristocracy.

7. **The Elimination of these Manorial Barriers to Agriculture lay in the following changes and processes**:

a) **The spread of a market economy,** a fully monetized market economy, and the concomitant development of commercialized agriculture.

b) **the decay of serfdom,** and other feudal controls over the peasantry.

c) **the decay of feudal landownership,** and transfer of ownership of manorial estates to non-feudal landowners: whether urban bourgeois merchants and financiers or wealthier peasants.

[9] Old French from the Latin: 'dead pledge', from the Latin *mortuus* [dead] and *gage* [OF], a pledge.

d) **The Enclosure Movement**: which meant placing land under single unified control so that either the landowner or the single tenant to whom land was leased could direct the use of that land to its most profitable use: so that one person could determine the mix between crops and livestock, select the crops to be grown in the best rotations, and employ the most efficient farming techniques.

MODEL OF THREE-FIELD CROP ROTATION SYSTEM

in Northern Europe

Year	FIELDS: A	FIELDS: B	FIELDS: C
I	**FALL** (Winter) Wheat or Rye; and/or Winter Barley (*bere*)	**SPRING** (Summer) Oats, Barley Legumes (Peas and Beans)	**FALLOW** Resting Uncultivated (Double Ploughed)
II	**SPRING**	**FALLOW**	**FALL**
III	**FALLOW**	**FALL**	**SPRING**

(A) **Fall or Winter Fields:**

consisted of crops that were planted in the Fall and harvested in the late Spring or early Summer: grains such as winter wheat and rye (rye being a northern crop in origin); and winter barley (*bere*). Winter wheat was the only form of Roman-Mediterranean farming.

(B) **Spring or Summer Fields:**

fields that were planted with both grain and vegetable crops in the Spring and harvested in the Fall (Autumn): new crop rotations added in early-medieval northern Europe and merged with the Roman system to become a so-called Three Field system. Spring/Summer crops included: the grains: barley, oats; and the pulses or légumes: peas, beans, and vetches.

(C) **The Fallow Fields:**

one third of the arable lands, lying at rest, uncultivated (each field every third year). Communal grazing of livestock on natural grasses growing on the fallow (after double-ploughing).

THE EFFECTS OF CHANGING RELATIVE AREAS OF GRASS (LIVESTOCK-PASTURE) AND ARABLE (GRAIN CROPS) ON THE OUTPUT OF A 100-ACRE FARM: IN BUSHELS PER ACRE (WITH LIVESTOCK OUTPUT EQUIVALENTS)

Assumption: Farm Operating on a Three-Field System with 2/3 in Crops and 1/3 Fallow (Uncultivated, Land at Rest) each Year

Grass Area in Acres	Grain Area in Acres	Fallow Area (at Rest): Acres	Manure Tons per Acre Arable	Grain Yield: Bu. per Acre	Total Grain Output Bu.	Stock Output in Equiv Bu.*	TOTAL OUT-PUT IN BU.
100	0.0	0.0				1,000	1,000
80	13.3	6.7	>10.0	27.5	366	800	1,166
77	**15.3**	**7.7**	**10.0**	**27.5**	**421**	**770**	**1,191**
60	26.7	13.3	4.5	16.5	441	600	1,041
40	40.0	20.0	2.0	11.5	460	400	860
20	53.3	26.7	0.7	8.9	474	200	674
0	66.7	33.3	0.0	7.5	500	0	500

* **Assumption:** That the output of livestock products is equivalent to 10 bushels of grain per acre.

Source: Robert Shiel, 'Improving Soil Fertility in the Pre-Fertiliser Era', in Bruce M. S. Campbell and Mark Overton, eds., *Land, Labour, and Livestock: Historical Studies in European Agricultural Productivity* (Manchester and New York, 1991), p. 71.

EUROPEAN POPULATION DISTRIBUTIONS, 1000 - 1450 A.D.

Area	1000 A.D.	1320 A.D.	1450 A.D.
Mediterranean: Greece, Balkans, Italy, Iberia (Spain and Portugal)	17.0 (44%)	25.0 (34%)	19.0 (38%)
West-Central: Low Countries, France, Germany, Scandinavia, British Isles	12 (31%)	35.5 (48%)	22.5 (45%)
Eastern Europe: Russia, Poland-Lithuania, Hungary, Bohemia	9.5 (25%)	13.0 (18%)	9.5 (19%)
TOTALS:	**38.5**	**73.5**	**51**

Source: J.C. Russell, 'Population in Europe, 500 - 1500', in Carlo Cipolla, ed., *Fontana Economic History of Europe*, Vol. I: *The Middle Ages, 900-1500* (London, 1972), pp. 25-70: Table 1, p. 19.

Table 1 Free and Villein Rents and Services on English Lay Manors, 1300 - 1349: Estimated Percentage of Rents and Services by Value

Type of Rent	Small Manors worth under £10 per year	Large Manors worth more than £50 per year	All Manors
Free Rents	24.60	15.80	18.40
Free Assize Rents	7.90	6.20	6.50
Unspecified Assizes	18.60	12.10	14.20
Unspecified Rents	3.90	3.80	3.80
TOTAL FREE RENTS	**55.00**	**37.90**	**42.90**
Villein Rents	26.30	30.10	29.10
Villein Assize Rents	1.70	3.60	3.20
Unspecified Assizes	4.60	8.10	7.10
Unspecified Rents	4.80	7.50	5.80
Total Villein Rents	37.40	49.30	45.20
Unspecified & Villein Services	7.50	12.90	12.00
TOTAL VILLEIN RENTS & SERVICES	**44.90**	**62.20**	**57.20**
no. of manors	1,910	334	4,090
Mean value of rents & services	£2.30	£38.20	£9.30
Mean Value of manor	£4.80	£85.50	£19.10
Percentage free land (approximate)	**70%**	**55%**	**60%**
Percentage villein land (approximate)	**30%**	**45%**	**40%**

Source: Bruce Campbell, 'The Agrarian Problem in the Early Fourteenth Century', *Past & Present*, no. 188 (August 2005), Table 4, p. 27.

Table 2 **Proportions of Rents Paid in Money and Labour Services on Freehold and Villein Tenancies, ca. 1280 According to the *Inquisitiones Post Mortem* (analysed by Kosminsky)**

Counties: Groups	Money Rents on Freehold Tenancies	Money Rents on Villein Tenancies	Labour Rents on Villein Tenancies: Estimated	Total of Villein Tenancies
Eastern Counties	28	33	39	72
South Midland Counties	29	48	23	71
Southern Counties	19	57	24	81
Western Counties	18	61	21	82

Eastern Counties: Essex, Suffolk, Norfolk, Cambridgeshire, Hertfordshire, Huntingdonshire, Northamptonshire, Middlesex, Lincolnshire.

South Midland Counties: Bedfordshire, Buckinghamshire, Berkshire, Oxfordshire, Warwickshire

Southern Counties: Surrey, Sussex, Hampshire, Dorset, Wiltshire, Somersetshire, Gloucestershire, Devonshire.

Western Counties: Herefordshire, Worcestershire, Shropshire, Cheshire

North Midland Counties: Rutland, Leicestershire, Nottinghamshire, Derbyshire. For these counties, the data for the villein holdings do not clearly distinguish between money rents and labour rents. The total surveys indicate that 18 percent of the rents were for freehold tenancies and 82 percent for villein tenancies.

Northern Counties: Northumberland, Cumberland, Westmorland, and Yorkshire**.**

Source: E. A. Kosminsky, *Studies in the Agrarian History of England in the Thirteenth Century*, ed. by R. H. Hilton and translated by Ruth Kisch (Oxford: Basil Blackwell, 1956), Table 8, pp. 194-95.

Table 3 Composition of Seigniorial Revenues in Early Fourteenth-Century England
Estimated percentage shares of total revenues

Class of English landlord	Demesne lands revenues	Rents from tenancies	Profits of Lord-ship (Ban-lités)	Tithes	Total Revenue in pounds sterling	Per-centage shares of total revenues
Greater landlords						
Crown and peerage	27	49	24	0	69,550	12.84
Greater clergy	22	39	19	20	187,000	34.54
Mean/sum of greater landlords	24	42	20	14	256,550	47.39
Lesser landlords						
Gentry	45	47	9	0	182,800	33.76
Lesser clergy	20	5	3	72	102,000	18.84
Mean/sum of lesser landlords	36	32	7	26	284,800	52.61
ALL LANDLORDS	30	17	13	20	541,350	100.00

Sources:

Bruce Campbell, 'The Agrarian Problem in the Early Fourteenth Century', *Past & Present*, no. 188 (August 2005), Table 3, p. 19.

Bruce M. S. Campbell and Ken Bartley, *England of the Eve of the Black Death: An Atlas of Lay Lordship, Land, and Weath, 1300 - 1349* (Manchester, 2005).

Table 4

Sources of Manorial Incomes on the Estates of Worcester Cathedral Priory 1291-92 to 1313-14

in percentage shares of total annual incomes

Date	Rents from peasant tenancies	Auxilium: Aid (from tenants)	Grain Sales: Demesne	Wool Sales: Demesne	Total Demesne	Other Incomes
1291-92	30.00	15.00	38.00	11.00	49.00	6.00
1293-94	33.00	17.00	35.00	14.00	49.00	1.00
1294-95	35.00	17.00	41.00	0.00	41.00	7.00
1313-14	25.00	0.00	41.00	19.00	60.00	15.00
Mean	**30.75**	**12.25**	**38.75**	**11.00**	**49.75**	**7.25**

Source:

Rodney H. Hilton, *A Medieval Society: the West Midlands at the End of the Thirteenth Century* (London: Weidenfield and Nicolson, 1967), p. 77.

Table 5 Sources of Manorial Incomes on Other English Ecclesiastical Estates, 1282 - 1321

in percentage shares of total annual incomes

Manors and Year	Rents and other dues from peasant tenants	Demense sales of livestock products (chiefly wool) and timber	Demesne sales of grains	Total Demesne Revenues
Westminster Abbey Manors:				
1282: Todenham	69	25	6	31
1289: Hardwick	52	8	40	48
1293: Knowle	36	* 63	1	64
1294: Todenham	42	45	13	58
1302: Knowle	64	**22	14	36
1306: Hardwick	48	7	45	52
Holy Trinity Abbey (Caen, Normandy): Minchinhampton manor, Gloucestershire				
1306-07	36	61	3	64
1310-11	34	50	16	66
1315-16	32	52	16	68
1320-21	23	66	11	77
Abbey of Bec, Wiltshire 1288-89	43	14	43	56
Leicester Abbey *** 1297-98	32	35	27	62

***** Knowle (1293): 52% of sales were from timber products

** Knowle (1302): 11% of sales were from timber products

******* The figures for Leicester Abbey, as supplied by Hilton, add up to only 94%. Whether an additional 6% came from other sources or whether there is an error in his data is not known.

Source:

Rodney H. Hilton, *A Medieval Society: the West Midlands at the End of the Thirteenth Century* (London: Weidenfield and Nicolson, 1967), pp. 77-78.

Table 6 **Sources of Manorial Incomes on the Estates of English Lords, in Staffordshire, 1291 - 1327 in percentages of total annual incomes**

Date	Manorial Estates Held by:	Rents from peasant tenants	Lordship Revenues *	Demesne Revenues	Total: Demesne and Lordship
1291	Bishop of Coventry, Staffordshire	47	38	15	53
1295	Tutbury Priory	66	21	13	34
1314	Earl of Lancaster, Staffordshire	50	39	11	50
1327	Baron Theobold de Verdon	55	19	26	45

* from: entry fines, merchets, heriots, tallages, leyrwite; and fees for the compulsory use of the lord's capital installations: water-mills, granaries, bread-ovens, fulling-mills, etc.

Source:

Rodney Hilton, 'Lord and Peasant in Staffordshire in the Middle Ages: the Earl Lecture', *North Staffordshire Journal of Field Studies*, 10 (1970), 1-20; republished in Rodney Hilton, *The English Peasantry in the Later Middle Ages: the Ford Lectures for 1973 and Related Studies* (Oxford: Clarendon Press, 1975), pp. 215-43, especially pp. 232-33.

Table 7 Cash Revenues from Three Essex Lay Manors, 1324 - 1348

in percentage shares, with total values in pounds sterling

Manor/ Year	Rents and Court Receipts	*Exitus Manerii* sales of pasture, hay, wood	Foreign Receipts Arrears Sales *super com-potum*	Grain Sales	Live-stock Sales	Total of Grain and Live-stock Sales	Total Value in pounds sterling
Pontes							
1341-42	8.7	21.4	1.3	40.5	28.2	68.7	13.848
1342-43	7.8	10.1	0.4	53.9	27.7	81.6	15.321
Carbonels							
1343-44	7.4	8.0	7.4	28.6	48.7	77.3	20.403
1346-47	7.4	2.4	10.4	35.9	43.9	79.8	22.580
Langenhoe							
1324-25	14.9	1.0	9.3	27.0	47.8	74.8	57.092
1338-39	17.6	15.0	0.0	18.2	49.2	67.4	47.516
1342-43	17.7	3.3	7.2	10.7	61.1	71.8	45.682
1344-45	13.5	7.7	8.2	29.3	41.4	70.7	67.683
1347-48	17.5	4.7	7.8	10.6	59.5	70.1	59.196

Source:

Richard H. Britnell, 'Minor Landlords in England and Medieval Agrarian Capitalism', *Past and Present*, no. 89 (Nov. 1980), 3-22; reprinted in T.H. Aston, ed., *Landlords, Peasants, and Politics in Medieval England* (Cambridge: University Press, 1987), pp. 227-46. Adapted from Table 1, p. 237. The manor of Kelvedon Hall (1334-35) has been omitted because it is a statistical anomaly, with most of the revenue from 'foreign receipts' and sales *super compotum*.