

# **III. BARRIERS TO ECONOMIC GROWTH IN THE MEDIEVAL ECONOMY:**

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

**revised 21 October 2013**

Week no., Wednesday Dates, and Suggested Readings	Lecture No.	LECTURE TOPICS to be covered
<p>6. 16 October 2013</p> <p><b>Epstein</b>, ch. 2 <b>Brady</b>, chs. 2-3 (Wiesner, Robisheaux)  <b>Cipolla</b>, chs 2-3,6  <b>Davis</b>, ch. 7</p> <p><b>ET 2</b></p>	<p>6</p>	<p><b>FEUDALISM AND MANORIALISM:</b></p> <p><b>Manorialism</b> as the economic foundation of Feudalism; Manorial Peasant Society;</p> <p><b>Serfdom</b>; the Historical Origins and Development of Serfdom; Serfdom in Medieval Manorial Agriculture; Manorialism and Peasant Farming in Mediterranean Europe.</p> <p><b>Agricultural Field Systems</b>: South and North Common or Open Fields and Three-Field Crop Rotations in northern Europe Field Systems and Crop Rotations;</p> <p><b>Feudalism, Manorialism, Serfdom, and Open Fields as Barriers to Economic Growth.</b></p>

# Manorialism: definitions

- (1) **a system of dependent peasant 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) **the peasants:** worked those lands at least in part for the lord's economic benefit
- - **in return for both economic and military security** in holding their tenancy lands from that military lord.

# Medieval Manorialism

## Key Features

- (1) **European manorialism** --- also known as **seigniorialism** [seignior, seigneur = lord] both **predated and outlived feudalism**: predominant agrarian socio-economic institution from 4<sup>th</sup>-18<sup>th</sup> century
- (2) **Medieval manorialism: links to Feudalism**
- **The manor was generally a feudal fief**
- i.e., a **landed estate held by a military lord** in payment and reward for military services
- **Feudal fiefs were often collections of manors,**
- **servile peasants** provided most of labour force in most northern medieval manors (before 14<sup>th</sup> century)

# THE FEUDAL LORD OF THE MANOR

- (1) **The Feudal Lord of the Manor: almost always possessed judicial powers**
- **secular lord:** usually a **feudal knight** (or superior lord: i.e., count or early, duke, etc.);
- **ecclesiastical lord:** a **bishop** (cathedral); **abbot** (monastery); an **abbess** (nunnery)
- (2) **Subsequent Changes: 15<sup>th</sup> – 18<sup>th</sup> centuries**
- **Many manors, in western Europe, passed into the hands of non-feudal landowners – office holders or wealthy merchants of bourgeois origin**

# The English Medieval Gentry as Manorial Lords: English anomaly

- **English gentry**: originally consisted of feudal knights
- but who, in England, were **commoners, not nobles!**
- **By the 15<sup>th</sup> century, the English gentry** had become a much broader socio-economic group
- **a majority of whom were not of military origin** - not descended from knights: but of **bourgeois** origins
- **as merchants, financiers, royal office-holders**
- **1436: about 25% of English lands were held by 'gentry'**, of this amorphous definition.
- [Second term topic – very important!!]

# Tripartite Organization of Medieval Manors with Serfdom

- **(1) The Demesne** (= domain: *dominus* = lord)
  - - the lord's own castle or chateau; his forests (for his exclusive use)
  - - his own agricultural lands: usually the best lands of the manor
- **(2) The Peasant Tenancies: servile (customary tenants ) and free tenants, intermixed amongst free and servile**
  - - peasant holdings were separate from the demesne lands
  - - in the form of scattered, interspersed plough strips [reason: later]
- **(3) The Commons: lands used in common, communally**
  - by the peasant villagers (tenants) – distinct from tenancies: grasslands, forest lands, meadows, etc.
  - **but by feudal law, Commons belonged to the manorial lord**

# Some few manorial exceptions

- 1) **Some few manors or seigneuries consisted solely of the lord's demesne (domain), worked by hutted serfs and slaves**
- - **Battle Abbey in 13<sup>th</sup>-century Sussex** best known case, but rare
- 2) **By the later Middle Ages, more and more manors consisted of FREE peasant tenancies and the village commons, with no or very little demesne lands remaining (after leasing) – often with demesne strips intermixed with tenancy strips.**

# Manorial 'Rents'

- (1) **Peasants supplied the lord various forms of rent in return for their lands & protection**
- **(i) paid rent in labour services:** on the demesne or elsewhere on the estate
- **(ii) paid rent as a share of the harvest**
- **(iii) and/or paid rent in money (silver coin):** eventually money rents became predominant
- (4) **Additional peasant payments:**
- **fin**es (to the lord), **banalit**és (compulsory fees for use of lord's property, **tithes** (church), **taxes** (state))

# Manorial Rents: Feudal Exploitation?

- (1) **Manorialism was clearly devised to be a system of feudal exploitation:**
  - - **in Ricardo's model**, manorial lords captured all the economic rent accruing on land (with population growth and rising grain prices)
  - - **in historical reality**, most manorial lords captured little if any of accruing economic rents (over time) – until later engaging in Enclosures
- (2) **Major theme of this course: struggle to control economic rents and gain freedom: economic and personal (political)**

# Typical Physical Layout of a Manor

- **As an economic lordship, manors defy any typical or common description**
- **(1)- the manor might have been co-terminus with the peasant village and the lord's own estate**
- **- (2) or the manor contained several villages**
- **- (3) or, the manor consisted of parts of several villages: the most usual situation (in England)**
- **- over which villages several lords had jurisdiction**

# The Manorial Demesne (1):

- (1) **Demesne (domain) lands were worked by a combination of:**
- - **some slave labour:** in England, still existing at time of the Norman Conquest (1066)
- - **the labour services of servile tenants**
- - **free hired wage-labour:** itinerant farm hands, especially for harvest times

# The Manorial Demesne (2)

- (2) **Shift to hired wage-labour in later-medieval western Europe:**
- - **with development of monetized urban markets,** peasant earned enough cash incomes to commute labour services to money rents
- - **landlords used cash incomes to hire free landless labour:** at lower cost, in terms of productivity,
- - **since servile peasants had strong incentives to ‘shirk’:** save labour for own holdings
- - **free labour could be dismissed (without ‘cause’)** while serfs could not – bound to soil.

# The Manorial Demesne (3):

- (3) **Contraction of demesnes in later 14<sup>th</sup> – 15<sup>th</sup> centuries:**
- - **lands leased out to peasants** both free and servile, but usually as 'free' lands
- - **remaining demesne lands often merged**, i.e., interspersed with tenants' lands (in plough strips)
- - **WHY? To take advantage of communal peasant ploughing and the manuring by communal grazing** of livestock on the fallow and post-harvest arable lands.

# Manorialism: Feudal Exploitation?

- (3) **Factors Mitigating feudal exploitation:**
- (a) **Growth of urban markets:** → money payments
- (b) **Manorial courts:** force of customary law with the establishment of customary rents:
  - in **fixed nominal money-of-account** terms (in silver);
  - not adjusted for and with inflation
- (c) **Struggle between *voluntas* & *consuetudines*** - - the power of the lord vs. the power of manorial customs
- (d) **differing social strata of the peasantry:**
  - ranging from servile (almost slave) to free peasants

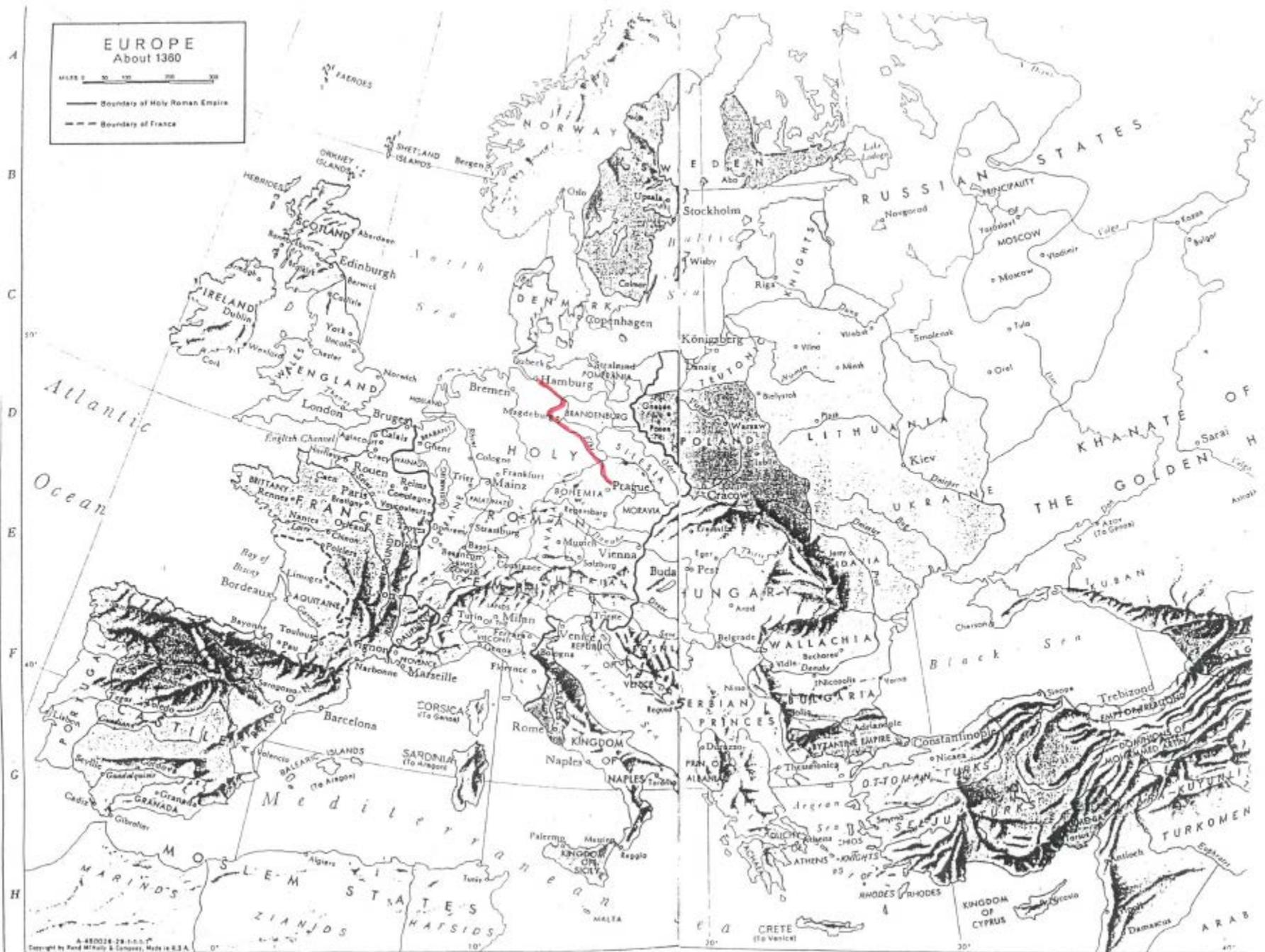
# MEDIEVAL SERFDOM within Manorialism

- (1) **The extents and degrees of serfdom** varied enormously across both time and space:
  - from the **British Isles to the Russian Urals**,
  - from the 4<sup>th</sup> to 19<sup>th</sup> centuries (Germany & Russia)
- (2) **The great dichotomy or watershed** in European history, **between West and East**
  - - **In the West**: the **decline of serfdom** from the 13<sup>th</sup> century, but especially during 14<sup>th</sup>-15<sup>th</sup> centuries
  - - **In the East** (East of the Elbe): **spread and intensification of serfdom**, from the later 15<sup>th</sup> to 18<sup>th</sup> centuries: in **Germany** (Mecklenburg, Pomerania, Prussia), **Bohemia**, **Poland**, **Lithuania**, **Russia**, **Ukraine**

# EUROPE About 1360

Scale 0 50 100 200 Miles

— Boundary of Holy Roman Empire  
- - - Boundary of France



# SERFDOM :Theoretical Model

- (1) **Bondage of the peasant serfs to the manorial estate or lord**
  - In either case, **serfs not free to leave the manor**
    - **bondage passed on** by blood inheritance
- (2) **Subjection to arbitrary labour services**
  - Up to three days a week (11<sup>th</sup> century)
  - labour services were part of the rent
- (3) **Subjection to other arbitrary exactions: see separate slide**
- (4) **Inability to serve as free men:** in church, army, on royal courts, etc.

# Bondage of Serfdom: other arbitrary exactions

- (a) **Merchet – formariage** (France): tax on marriage
- (b) **Leyrwite**: tax on bastardy
- (c) **'Entry Fines'**: extra money payments on the heirs' succession to a servile holding
- (d) **Heriot**: inheritance tax in form of livestock
- (e) **Tallage**: or poll (head) tax
- (f) **Mainemorte**: in France (or many parts of France) : loss of holding with no male heirs

# Servile Property Rights & Crown 1

- (1) Serfs (aka: villeins – ‘villeinage’ = serfdom, in England & English usage)
- **almost everywhere**, serfs were subject to the exclusive jurisdiction of the manorial (seigniorial) court on property rights
- - in early centuries of feudalism and serfdom, kings or territorial princes had almost no influence over manors and manorial lords

# Servile Property Rights & Crown 2

- (2) **FRANCE: an exception from 13<sup>th</sup> century:**
- **with spread of royal power, beginning with Philip II Augustus, 1180-1223:**
- **French kings sought to undermine power of feudal nobility:**
- **by allowing the Parlement de Paris (high court) to hear appeals from the seigniorial courts:**
- **over peasant tenures, inheritances, customary rents, etc.**
- **Gradually, the Parlement de Paris** deeply entrenched the property rights of the northern French peasantry
- **i.e., but only where feudalism prevailed in France: north of the Loire river**

## 2 The expansion of the French monarchy, 987-1328

- French royal domain in 987
- French possessions of Henry II of England 1154 (Angevin Empire)
- French royal domain at death of Louis VII, 1180
- areas dependent on French monarchy in 1180
- English possessions in France in 1259
- additions to French royal domain before death of Louis IX, 1270
- additions before death of Philip IV in 1314
- additions before death of Charles IV in 1328







# Servile Property Rights & Crown 3

- (3) **ENGLAND:**
- **royal common-law courts could intervene within manors only** on criminal law issues,
- **manorial courts continued to have exclusive jurisdiction** over peasants' property rights:
- **so that English peasants had far less secure property rights than did French peasants up to 18<sup>th</sup> century**

# **Bloch Thesis on English Manorialism & property rights**

- - **Marc Bloch thesis:** that the extension of royal power over all England, from the reign of Henry II (1154-1189) was 'precocious', premature (compared to medieval France)
- - **But Bloch ignored the lack of feudal opposition to rule of the English kings, after 1154**
- - **English kings were, in 12<sup>th</sup> - 13<sup>th</sup> centuries, still powerful landlords** who did not want royal courts interfering with administration of their own manorial estates.

# Free Peasants 1: Who Were They?

- (1) **Peasants: whose tenures and conditions of service were defined by written, legal contracts; or by inheritance rights:**
- - **free to sell or trade their lands**, to quit their lands
- (2) **Fully protected by royal common law courts** (as well as by manorial courts)
- (3) **Free to serve on royal courts of justice & in the church**
- (4) **Free to bear arms** – as infantry soldiers)

# Free Peasants 2: Who Were They?

- **ENGLAND**: about **25%** of peasantry were **free even in areas of feudal manorialism, ca. 1300** – and far more were free outside that zone (to be shown later)
- **Greater extent of personal peasant freedom** in England, ca. 1300, than in northern feudal France.
- **But French servile peasants** (*vileins*) gained stronger property rights!!

# Bloch Thesis on Late Roman Origins of Serfdom (1)

## (1) Late Roman Empire: growing labour scarcities from two sources

- **Pax Romana**: ended wars that supplied slaves
- **demographic decline**, from ca. 180 CE

## (2) *Latifundia*: large grain estates worked by slaves

- **Landlords were usually military leaders**: who owed both service and grain taxes to the state: obligations they could not escape
- **Also leased (rented) lands to free peasants**

# Bloch Thesis on Origins of Serfdom (2)

(3) **Colonnate: established under Emperors Diocletian (284-305), and Constantine (305-337):**

- **bound peasants to the latifundia**, and to other occupations: to ensure tax payments to Empire
- **Objective: to prevent a free market in land & labour**
- To prevent peasants from **bidding up wages** and **bidding down rents**

# Bloch: on origins of Serfdom (3)

(4) **Serfdom develops from: the merger of two forms of peasant statuses**

- **elevation of status of former slaves**: could not be killed, etc.
- **depression of status of formerly free peasants**
- **Note that the word 'serf' comes from Roman word 'servus' = slave**

- (5) **Europe then needed a new word for slaves**: from **Slav** (Germanic conquests)

# Bloch: on the Origins of Serfdom (4)

- (5) **Late Roman – Early Medieval eras:**
- - **as previously shown in rise of feudalism:** widespread insecurity with civil wars → foreign invasions: to the end of Carolingian era (10<sup>th</sup> century)
- - **Feudalism:** military protection at local levels
- (6) **With Rise of Feudalism came increasing spread of serfdom:**
- **as feudal lords increased their estates** by absorbing peasant villages,
- **most peasants surrendered any remaining freedom** in return for greater **protection & security**

# 1 Viking, Magyar and Saracen invasions

	boundary of Christian west on the eve of invasions		Danish
	Saracen attacks		Norwegian
	areas most affected by Saracen raiders		Swedish
	route of great Magyar invasion of 937		Viking routes
	main areas devastated by Magyars		Viking bases



# Medieval Manorial Tenancies with serfdom: 1

- (1) **Payments of peasant tenancy rents: as already noted**
- (a) **in labour services** by servile peasants
- (b) **in kind**: as a share of the harvest by all
- (c) **in money**: cash rents, as already explained
- - **cash rents** were usually fixed in terms of nominal money-of-account: i.e., shillings & pence, in current silver coin.

# Medieval Manorial Tenancies 2

- (2) **Forms of peasant tenancies:**
- (a) **hereditary tenancies: free & servile**
- **but servile tenancies** were not as secure (because of imposition of entry fines)
- (b) **copyhold tenancies (later):** for 'lives': 1 – 3 lives (reckoned as 21 years maximum)
- (c) **leasehold: from letting out demesne lands:** on written contracts with specified no. of years, fixed cash rents

# MANORIAL VILLAGE COMMONS

- (1) **Outlying manorial lands**: in neither demesne nor tenancies, outside the open arable fields
- (2) **Communal use by villagers**
  - (a) **as pasture**: grazing livestock: sheep & cattle
  - (b) **meadow lands**: to produce hay
  - (c) **forests: vital for peasant economies**
    - - for feeding pigs, goats
    - - for wood: fuel, construction

# Demesne vs. Tenancies in Manorial Estates

- There were two basic types of medieval manorial economies (see tables): the German terms
- (1) **GUTSHERRSCHAFT: with servile labour services**
- a manorial economy whose revenues came primarily from the demesne:
  - - grain, livestock, timber products
  - + servile labour services on the demesnes
  - + profits of manorial justice
- (2) **GRUNDHERRSCHAFT: without labour services**
- a manorial economy whose revenues came primarily from peasant tenancy rents: in cash only (silver coin)

# Gutsherrschaft or Grundherrschaft in English Manorial Estates, 1291- 1327?

Manorial Estate/Date	Income from Demesne sales	Income from Manorial Courts	Income from Peasant Tenancies
Bishop of Coventry 1291	15%	38%	47%
Earl of Lancaster in 1313-14	11%	39%	50%
Verdon Estates in 1327	26%	19%	55%

# Free and Villein Rents on English Lay Manors, 1300-1349

Type of Rents	Small Manors	Large Manors	All Manors
Total Free Rents	55.00%	37.90%	42.90%
Total Villein Rents and Labour Services	44.90%	62.20%	57.20%
Mean value of rents	£2.30	£38.20	£9.30
Percentage Free land (by area)	70%	55%	60%
Percentage Villein Land (by area)	30%	45%	40%

# Conclusions drawn from table on villein & free rents

- (1) **Predominance free tenancies by area:** 60% in free tenancies; 40% in villein tenancies
- (2) **Predominance of rentals from villein tenancies:** 57.20% from villein; 42.90% from free lands
- (3) **Rental burden on villein tenancies by acre much higher** than on free tenancies
- (4) **Size matters!** On large manors, higher proportion of rents from villein tenancies; but lower proportion of villein rents on small manors
- (5) **Survey pertains only to lay manors: but ecclesiastical manors (larger)** had higher proportion of rentals from villein than from free tenants

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
<b>TOTAL FREE RENTS</b>	<b>55.00</b>	<b>37.90</b>	<b>42.90</b>
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
<b>Total Villein Rents</b>	<b>37.40</b>	<b>49.30</b>	<b>45.20</b>
Unspecified & Villein Services	7.50	12.90	12.00
<b>TOTAL VILLEIN RENTS &amp; SERVICES</b>	<b>44.90</b>	<b>62.20</b>	<b>57.20</b>
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%

**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)**

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

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

<b>Class of English landlord</b>	<b>Demesne lands revenues</b>	<b>Rents from tenancies</b>	<b>Profits of Lordship (Ban-lités)</b>	<b>Tithes</b>	<b>Total Revenue in pounds sterling</b>	<b>Percentage shares of total revenues</b>
<b>Greater landlords</b>						
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
<b>Lesser landlords</b>						
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
<b>ALL LANDLORDS</b>	30	17	13	20	541,350	100.00

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

**in percentage shares of total annual incomes**

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

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

**in percentage shares of total annual incomes**

<b>Manors and Year</b>	<b>Rents and other dues from peasant tenants</b>	<b>Demense sales of livestock products (chiefly wool) and timber</b>	<b>Demesne sales of grains</b>	<b>Total Demesne Revenues</b>
<b>Westminster Abbey Manors:</b>				
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

**Table 6**

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

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

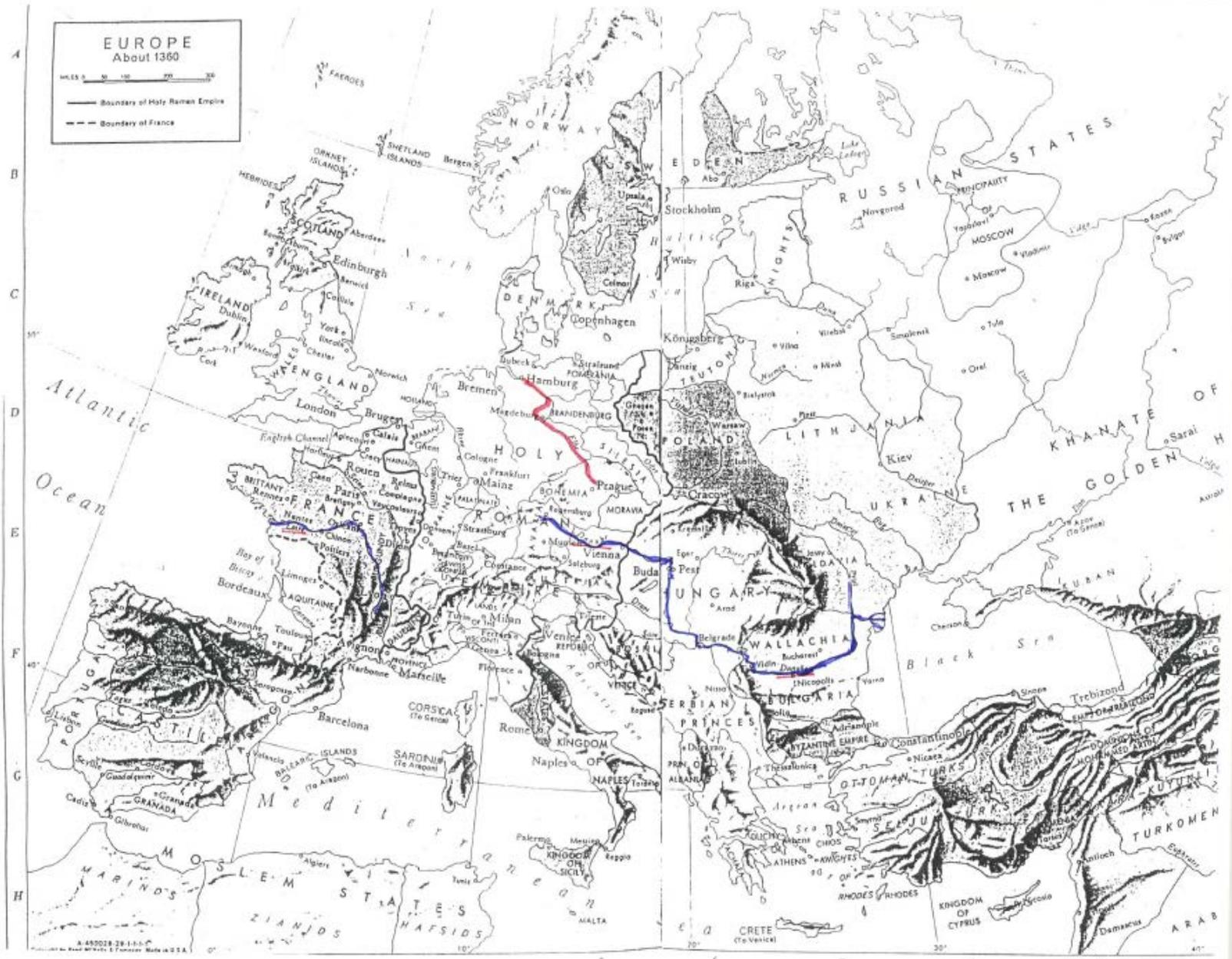
# EUROPEAN AGRICULTURAL FIELD SYSTEMS: NORTH & SOUTH

- (1) **North – South Divisions:** in medieval European agricultural field systems
  - - in **Western Europe:** the **Loire River** (France)
  - - in **Central-Eastern Europe:** the **Danube River**
- (2) **Contrasts in agricultural forms: between:**
  - a) **southern-Mediterranean DRY FARMING**
  - b) **northern European WET FARMING**
- (3) **Contrasts in land tenure:**
  - a) **southern individual hamlets: private plots**
  - b) **northern manorial-communal farming**

**EUROPE**  
About 1360

MILES 0 50 100 200

— Boundaries of Holy Roman Empire  
- - - Boundary of France



# Mediterranean Dry Farming 1

## (1) Determining Factors:

- (a) **Strength of Roman institutions, law, and urban culture:** South never fully feudalized, nor subjected to manorialism & serfdom
- (b) **Hot, dry (arid) climate:** winter rains only

## (2) Two Field System of Crop rotation

- (a) **winter-sewn wheat and fallow,** alternating in two-year cycle
- (b) **insufficient moisture and soil fertility** to permit two crops in annual succession

# Mediterranean Dry Farming 2

## (3) Plough and Draught (Draft) Animals:

(a) **Aratrum**: cheap, light **plough** drawn by one ox  
(Roman origins)

(b) **Ploughs criss-crossed the soil**, not cutting deeply –  
to avoid damaging the underlying water table

(c) **Oxen as draft animals: fed on natural grasslands:**  
system did not produce much fodder crops

## (4) Layout of southern, Mediterranean farmlands:

- **in form of scattered hamlets**, with individual,  
separated holdings, by free peasants (paying rent)

# Northern Wet Farming: 3 – Fields

- (1) **Determining Factors:**
- (a) **Spread of Feudalism, Manorialism, Serfdom:** north of the Loire and Danube rivers
- (b) **climate and geography:**
  - moderate to heavy rainfalls over the entire year
  - heavy clay, alluvial river valley soils
- (c) **requiring a far heavier plough** and
- (d) **more & stronger draft (draught) animals**

# The Carucca: northern plough

- (1) **Entirely new plough**, unknown to Romans: probably Slavic in origin – 6<sup>th</sup> century or so
- (2) **Heavy wheeled plough** fitted with:
  - - **coulter**: large knife blade cutting deeply into the clay soils, creating a deep furrow
  - - **mouldboard**: casting soil to one side, to produce permanent ridge & furrow
- (3) **Combination of ridge and furrow**: permitted proper drainage, while retaining moisture

# Northern Plough Teams: oxen & horses - 1

## (1) Draft animals to pull the ploughs:

- a) team of eight oxen: contributions from four to eight peasants
- b) or team of two horses:

## (2) The shift from oxen to horses:

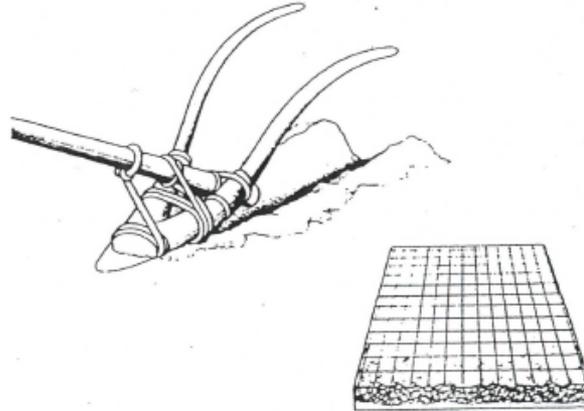
- - from the 10<sup>th</sup> to 13<sup>th</sup> centuries: never complete
- - 2 horses = 8 oxen
- - horse advantages: faster, stronger, more durable

# Northern Plough Teams: oxen & horses - 2

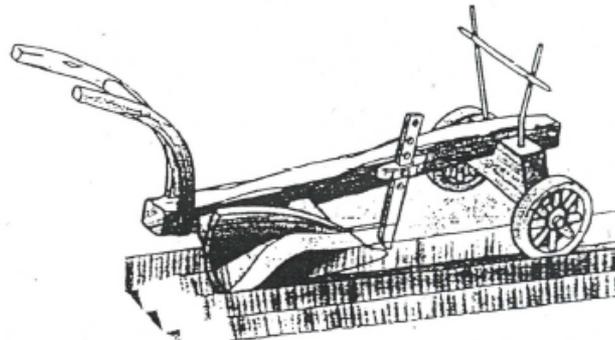
- (3) **Technological innovations required:**
- - **the iron horse shoe:** already seen (Feudalism)
- - **the horse collar:** to enable the horses to pull the heavy plough without cutting off the windpipe:
- **fixed collar of wood and leather,** attached to the plough
- (4) **Disadvantages of horses:**
- - **more costly to breed** than oxen
- - **more costly to feed:** required both hay and oats (or other fodder)

## MEDIEVAL PLOUGHS

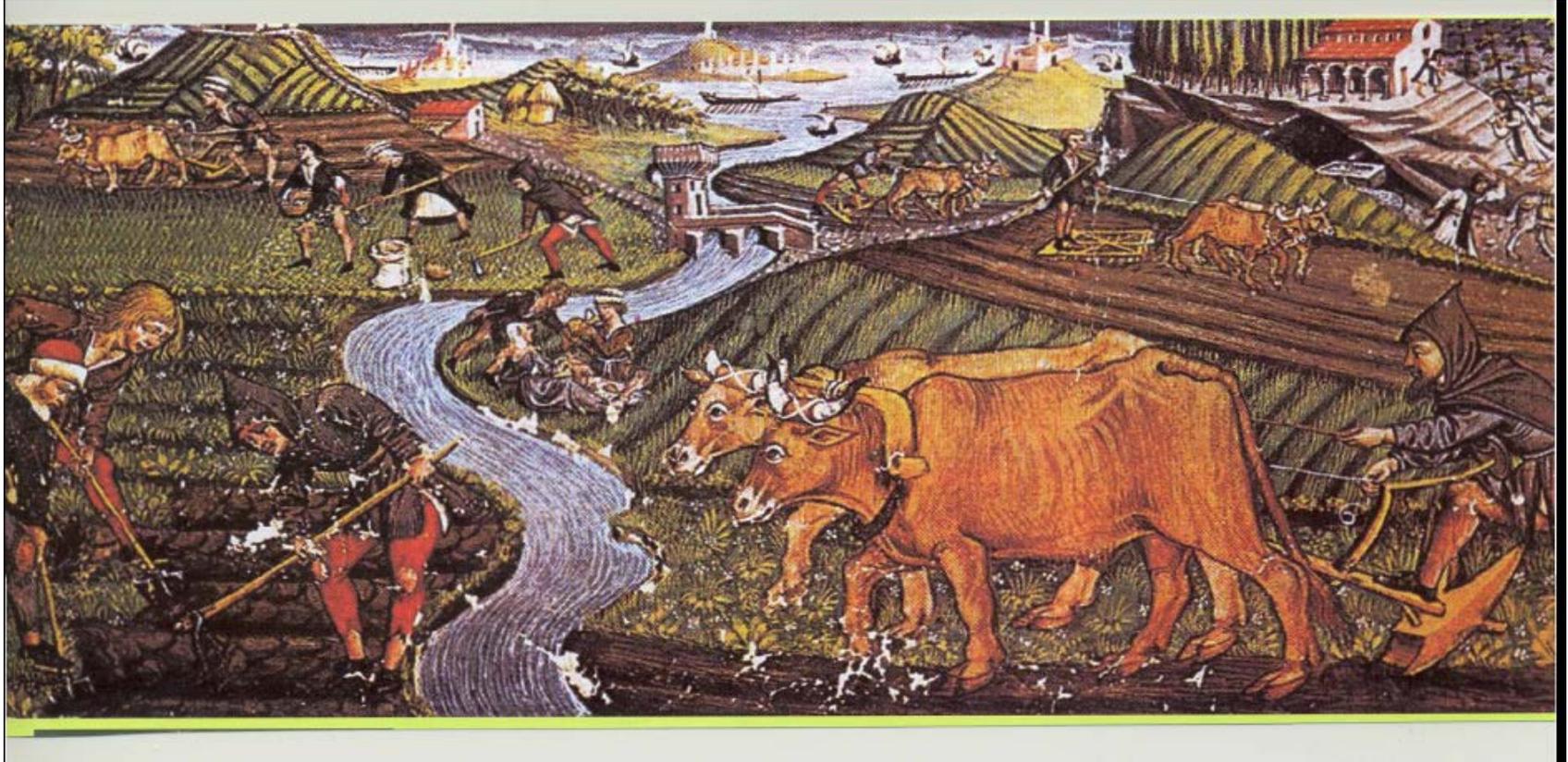
### MEDITERRANEAN DRY FARMING: THE ARATRUM



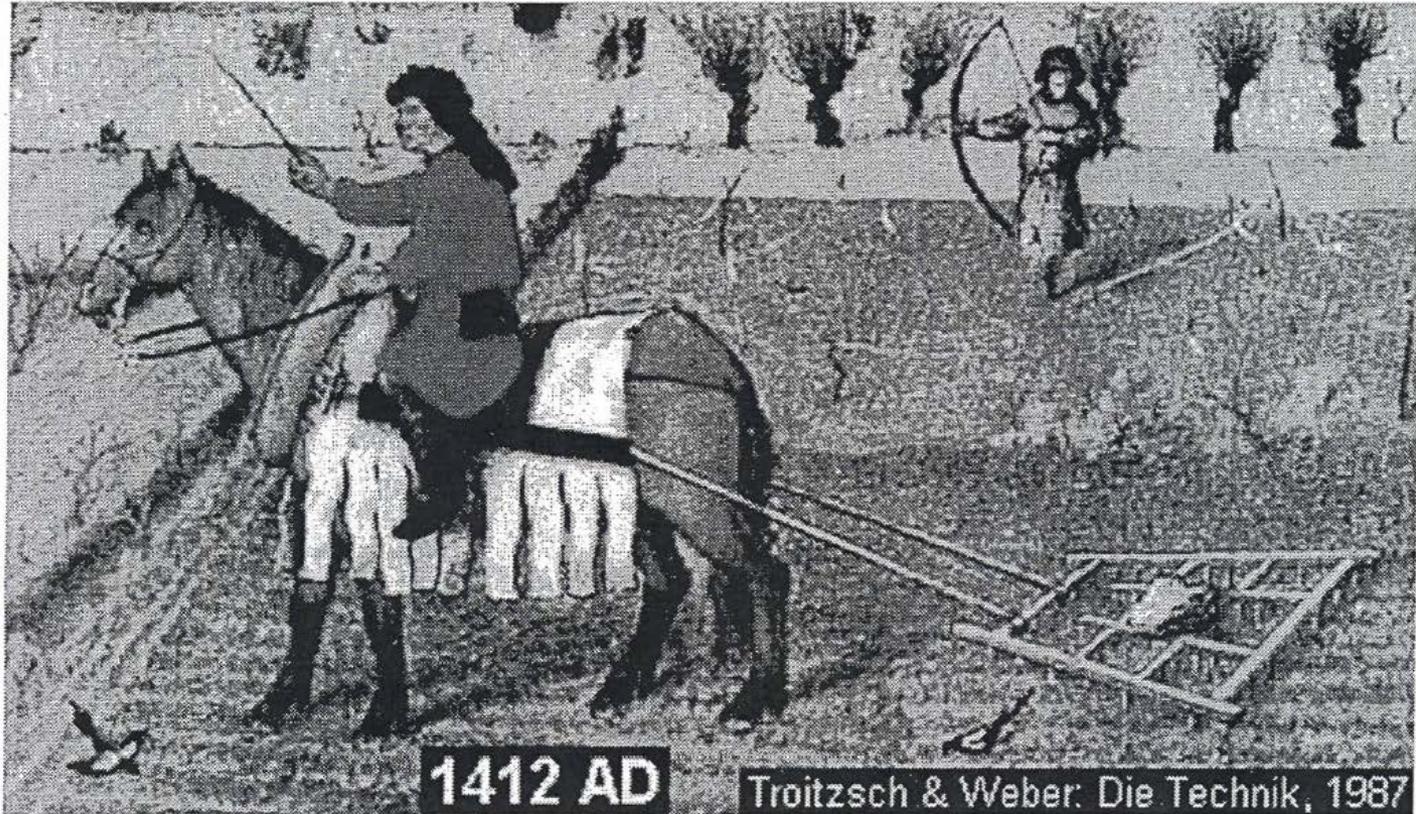
### NORTHERN WET FARMING: CARUCCA OR SLAVIC PLOUGH with coulter and moldboard



# Medieval Ploughs: Mediterranean



# The Horse Collar



1412 AD

Troitzsch & Weber: Die Technik, 1987

# Importance of medieval livestock

- **Why were cattle, oxen, and sheep so vital ?**
- (1) **To provide power:** ploughs, harrows, carts
- (2) **to provide manure:** restore nitrogen to soil
  - **folding:** livestock fed on pasture during the day and 'folded' on post-harvest arable or fallow at night
- (3) **to provide high-protein foods:** meat, dairy products (milk, cheese, butter)
- (4) **to provide industrial raw materials:** **wool** (from sheep), **leather, bone:** in place of modern metals, etc.
- (5) **to provide military power:** bred war-horses

# Medieval Livestock: 2

- (6) Jared Diamond, *Guns, Germs, and Steel*: -  
**Europe**, unlike any other region of the world, possessed enormous advantages in both the quantity and variety of livestock
- - **especially true, and relatively more important, for northern Europe**, compared to southern, Mediterranean Europe.
- - **Northern Three-Field System**: develops in the north during the 8<sup>th</sup>-10<sup>th</sup> centuries to accommodate greater livestock requirements

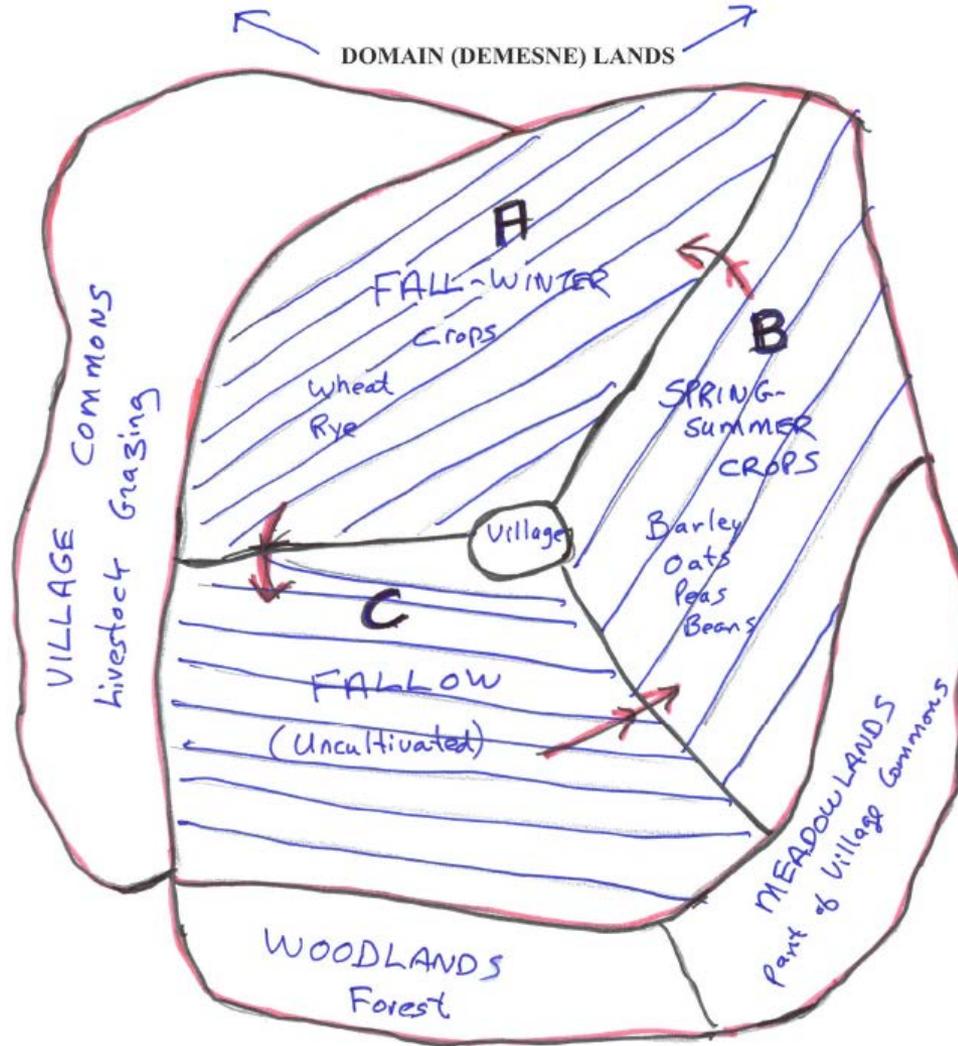
# Three-Field System: Crop Rotations

- (1) **Fall-Winter Fields**
- **Grain crops planted in the Fall**, germinate over the Winter, harvested in late Spring
- **Chief crops:** wheat, rye, and winter barley
- (2) **Spring-Summer Fields**
- **crops planted in Spring**, germinated over Summer months; harvested late Fall
- **Chief crops:** grains: barley & oats; légumes: beans, peas, vetches
- (3) **Fallow Fields: lands lying uncultivated**

OPEN OR COMMON FIELDS

WITH THREE-COURSE CROP ROTATIONS

("THREE FIELD" SYSTEM WITH FALLOW)



## MODEL OF THREE-FIELD CROP ROTATION SYSTEM

in Northern Europe

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

# Three-Field System: Importance of the Fallow

- (1) **One-third of lands lie at rest, uncultivated**
- **all lands lay fallow every third year:** to permit nature to restore fertility
- **natural grasses on fallow:** providing grazing for livestock, which deposited manure (chiefly at night)
- **lands were double ploughed:** to mix manure with soil & to suppress weeds

# Importance of the Fallow - 2

- (2) **Manuring & Folding:**
- a) **livestock fed on richer pasture lands during day**
- b) **'folding'**: having livestock graze on fallow at night, to deposit the manure
- c) **livestock similarly 'folded' on the post-harvest arable**: grazing on the stubble that remained after harvesting.
- (3) **Represented a symbiotic relationship between pasture & arable - not found** in southern Europe, with separate arable & pasture

# Importance of the Spring Fields

- (1) **Two new grains in northern 3-field system:**
  - - **Barley:** for brewing beer, ale, as well as for bread
  - - **Oats:** fodder crop, for feeding horses especially
- (2) **Two new legumes: peas and beans (& vetches)**
  - - **fix nitrogen to the soil:** from the parasitic **bacteria** that feed on their root systems;
- (3) **Nitrogen fixation: When the bacteria die, they decompose:** fix nitrogen compounds into the soil
- **But nitrogen fixing properties actually were weak**
- **did not make up for nitrogen depletion** by growing wheat and rye especially

# Common & Open Fields in northern manorial farming

- (1) A system found only in northern feudal-manorial farming,
- usually with a Three-field system,
- ‘Mixed Husbandry’:
- (2) a Three-field system that necessarily combined pastoral & arable farming in a symbiotic relationship (as just noted)

# Why Mediterranean Agriculture had few Common Fields

- (1) southern agriculture was only imperfectly feudalized & manorialized: political factors
- (2) South: lacked the wet climate and fertile alluvial soils required for mixed farming
- (3) Arable and pasture were kept separate
- - livestock grazing: with itinerant flocks or herds ranging over vast areas of sparse grasslands (e.g. Spanish Mesta)

# Population Growth and Agricultural Field Systems 1

- 1) **Proposition one:** the far greater productivity and stability of the northern three field systems, with more varied and larger crop and livestock outputs promoted greater population growth than in rural areas of the south (where urban growth was greater)

# Population Growth and Agricultural Field Systems 2

- 2) **Proposition Two:** a greater population growth in the north, for other exogenous and endogenous reasons, forced the north to innovate by adopting the three field system to produce more foodstuffs to accommodate that greater population growth than in the South
- 3 **Problem:** proposition two ignores the realities of physical and cultural impediments in adopting a three-field system (especially in the manorial context of the North)

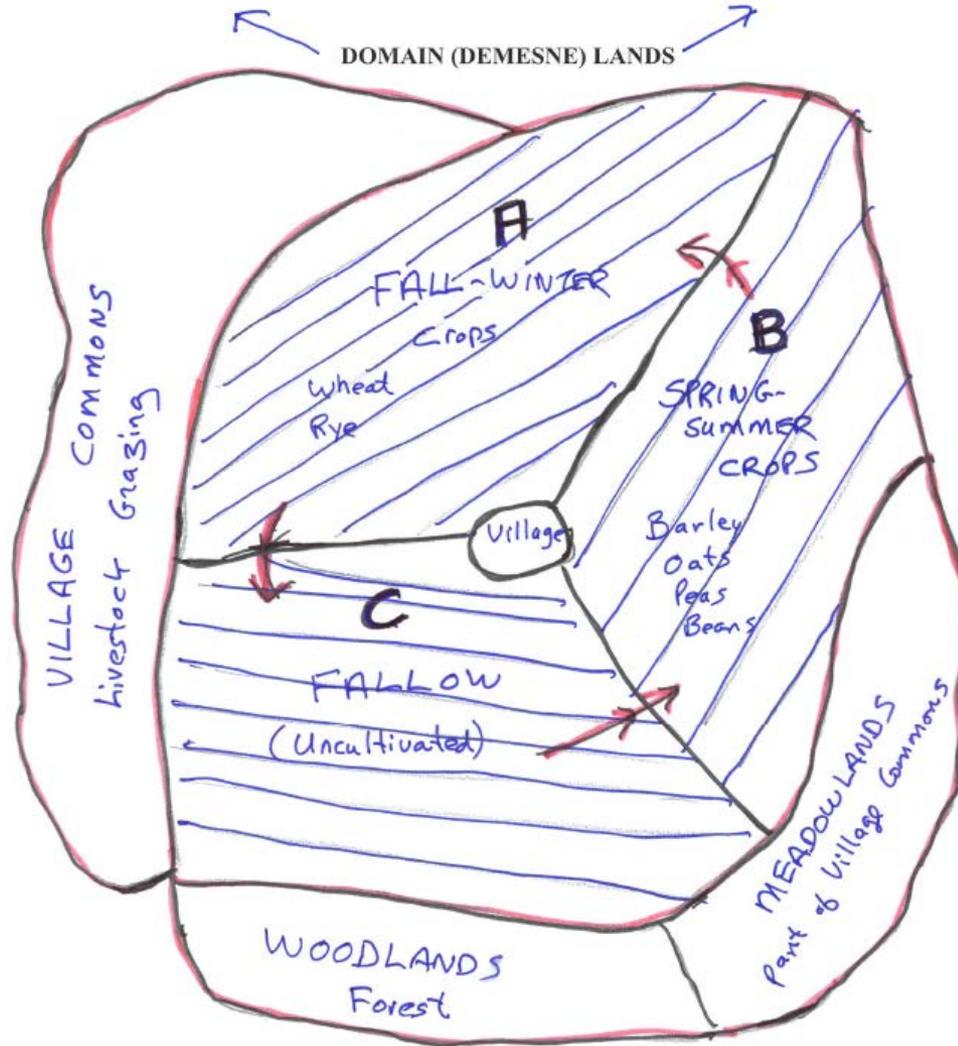
## EUROPEAN POPULATION DISTRIBUTIONS, 1000 - 1450 A.D.

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

OPEN OR COMMON FIELDS

WITH THREE-COURSE CROP ROTATIONS

("THREE FIELD" SYSTEM WITH FALLOW)



# OPEN OR COMMON FIELDS in northern Manorial Agriculture 1

- (1) **Communal farming**: the cultivation of the three-field arable and use of the pasture was undertaken and **regulated communally**: by the entire peasant village (or village elders)
- (2) **Open, unfenced arable fields** – whether three or a dozen (in sets of 3) were unfenced: i.e., Open
- (3) **Communal grazing of the entire village livestock**: flocks of sheep, herds of cattle
- – on the village **Commons, the Fallow, and the post-harvest arable fields** (the stubble)

# Communal Livestock Grazing

- **Communal grazing in this fashion, with economies of scale**, was far more efficient than individual tethering
- **Crucial problem of population growth**: → led to the expansion of the arable → at the expense of outlying pasture and waste lands,
- **thus requiring economies in grazing**
- **communal grazing and night 'folding' (manuring)** on both the fallow and post-harvest arable: an essential component of maintaining the fertility of the arable
- **Fields had to be open, unfenced**, for communal grazing, i.e. to allow livestock to wander in grazing

**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 OUTPUT 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	<b>15.3</b>	7.7	<b>10.0</b>	<b>27.5</b>	<b>421</b>	<b>770</b>	<b>1,191</b>
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.

# Components of Common Fields (2)

- (4) **Communal Ploughing:**
- **all peasant families combined together to provide the oxen and ploughs:**
- - **oxen:** owned by individual families – usually two per family (excepting poor peasants)
- - **ploughs: often communally owned**
- - communal teams to undertake ploughing
- (5) **Communal Regulation of Crop Rotations:**  
**decisions made by a council of village elders**

# Communal Regulation of Crop Rotations

- (1) **crop rotations applied to the entire set** of the village arable lands: no individual cultivations
  - - **obviously communal grazing could work only if each set of fields had the same seasonal crops** that were all harvested together at same time, so that livestock could freely graze on post-harvest stubble and on the fallow.
- (2) **Free peasant choices within each set of seasonal fields:**
  - **choice of crops sown:** wheat or rye; barley or oats, or legumes: was left to each peasant family, but only within each seasonal set of fields (Winter, Summer, Fallow)
- (3) **Each family free to collect the crops from its own plough strips:** after communal ploughing and harvesting

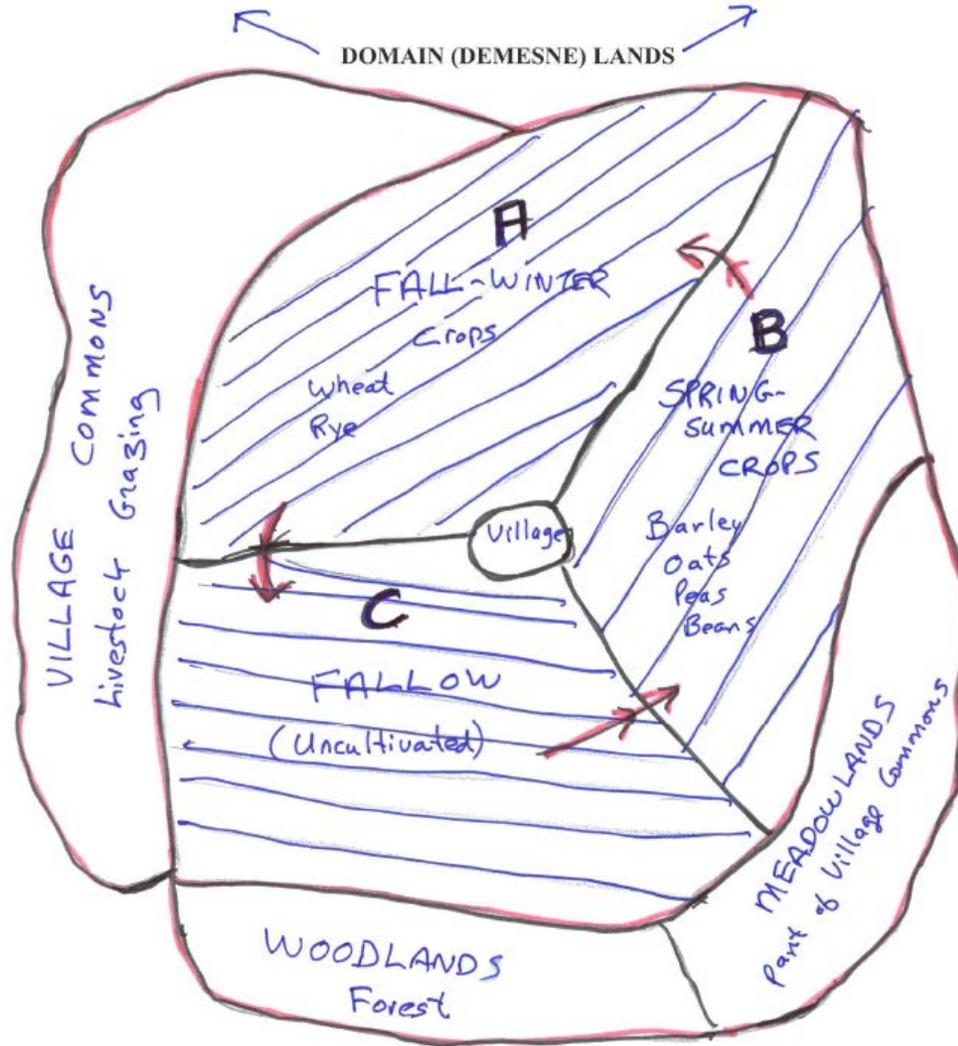
# Scattering of Tenancies in Open Fields

- **Scattering of the peasant tenancy strips:**
- **(1) not only in all three fields (or sets of fields), but also interspersed within each field:** interspersed between neighbours strips
- **(2) Peasant tenancies:** in form of **plough strips:** with long, narrow ridges and furrows
- **(3) Later medieval era: demesne strips** came to be interspersed with tenancy strips.

OPEN OR COMMON FIELDS

WITH THREE-COURSE CROP ROTATIONS

("THREE FIELD" SYSTEM WITH FALLOW)



# Theories to Explain Scattering (1)

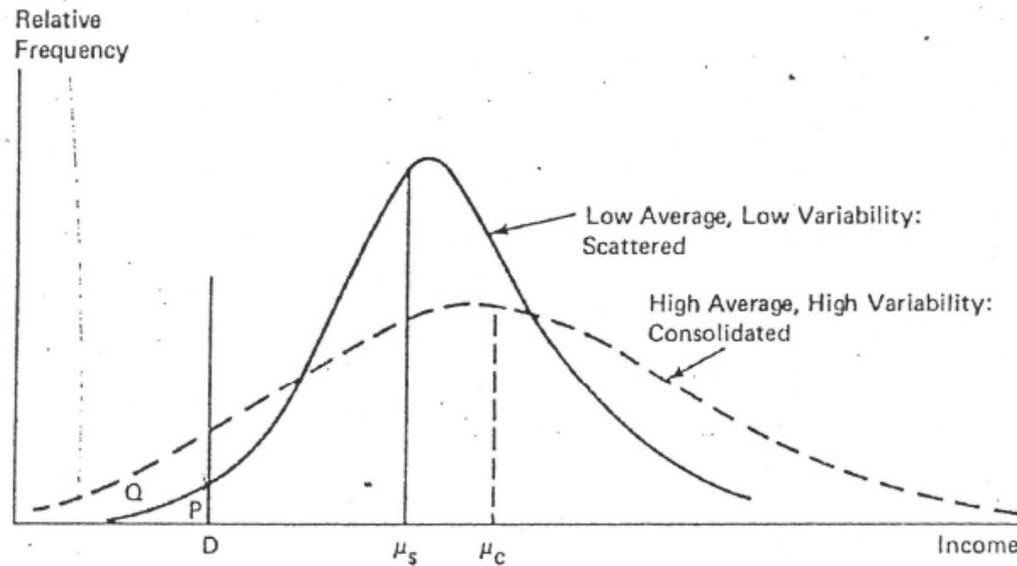
- (1) **Communal Land Clearing** (deforestation)?:  
piecemeal additions of new lands
- (2) **Communal Ploughing?**: not explain interspersing
- (3) **Peasant Communal Equality?** Nonsense!
- (4) **Joan Thirsk: subdivisions by partible inheritance**  
with population growth?
- **But communal farming in feudal English Midlands** was  
not a zone of partible inheritance
- (5) **To provide diversification of crops: in all 3 fields:**  
but does not really explain again interspersing of strips  
with neighbours strips

# Theories to Explain Scattering (2)

- (6) **McCloskey: risk aversion**: sharing and reducing a family's risk by diversification
- - **to minimize enormous risks of crop failures** from bad weather (floods, droughts), sudden frosts, insects, animal pests, crop diseases,
- - **that risks varied even by small differences** in location, land heights, temperature, rainfalls
- **Communal agriculture was not profit-maximizing**: but risk-reducing social enterprise
- **Investment model** of a highly diversified portfolio

# McCloskey Model of Scattering

Figure 1. Reducing the Probability of Disaster by Reducing Variability at the Cost of a Reduced Average.



# Dahlman Model on Strip Scattering

- (7) **The Dahlman Thesis of Medieval Mixed Husbandry:** scattering to reconcile conflicting interests of arable and pastoral farming
- **Arable farming can be efficient with small individual plots:** land **intensive**
- **But livestock raising requires large-scale economies of grazing land:** land **extensive**
- **Mixed husbandry required communal grazing:** not only on outlying pasture and waste lands, but also, as seen, on the fallow & post-harvest arable

# Dahlman Model on Strip Scattering

- **Problem exacerbated with population growth**, expanding the arable lands at expense of pasture lands
- **If tenancies were held in unified blocks, in each field**, more aggressive, more productive, wealthier peasants would seek to expand their holdings by driving out their neighbours & withdrawing lands from Open Fields
- **Hence to prevent such consolidation**, communal regulation had to impose permanent scattering of holdings, to protect Open Field system
- - **That is what happened with the Tudor-Stuart enclosures** of the later 15<sup>th</sup> & 16<sup>th</sup> centuries

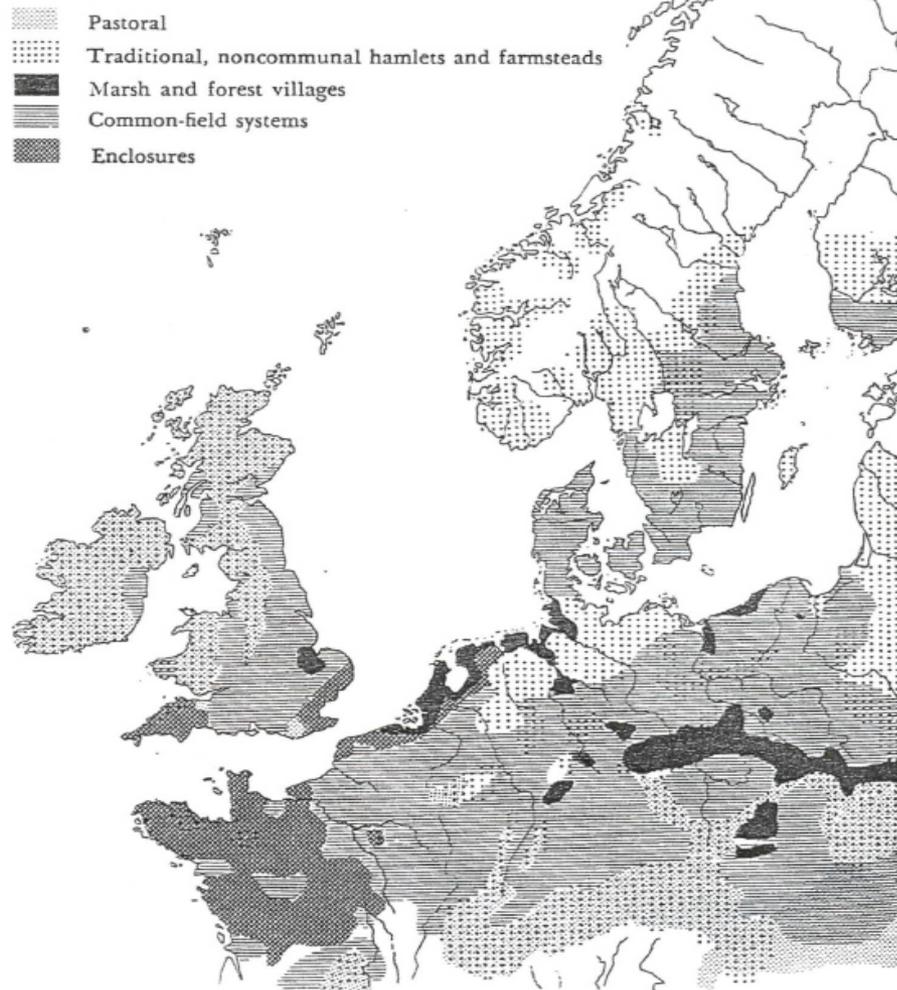
# The Brenner thesis: related issues

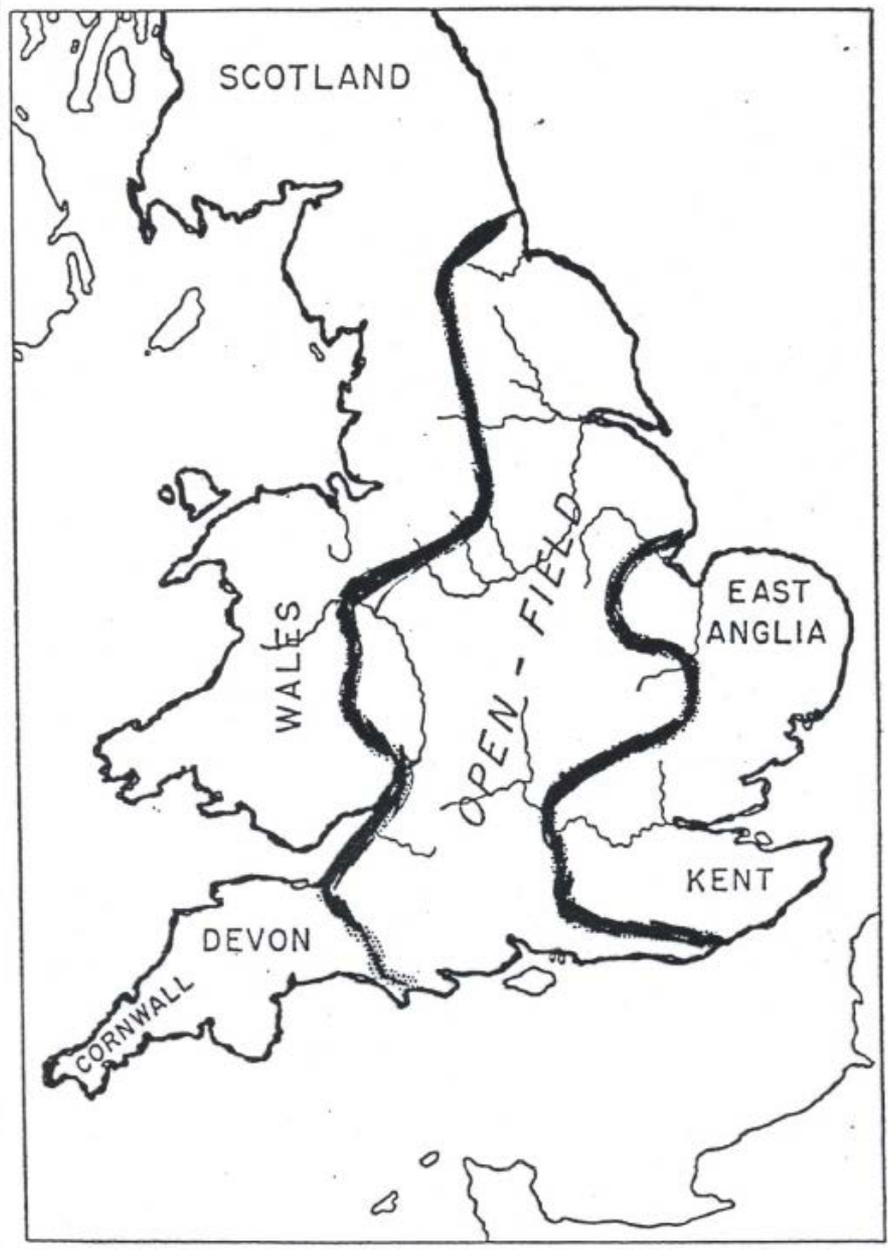
- (1) **Robert Brenner** ( Marxist American economic historian)
- - **Has contended that the West European Common/Open Field system of communal agriculture evolved as a defensive mechanism** by which western peasants sought to curb the extent of feudal-manorial exploitation
- (3) **Common/Open field system most effective** in villages with shared feudal-manorial jurisdictions
- - **the village and not the lord(s) decided on how Mixed Husbandry conducted:** how crops are grown and livestock raised, etc.
- (4) **Cogent reason explaining the link** between feudal-manorialism and Common Fields
- (5) **Brenner never mentions the Dahlman thesis.**

# Private Aspects of Communal Farming

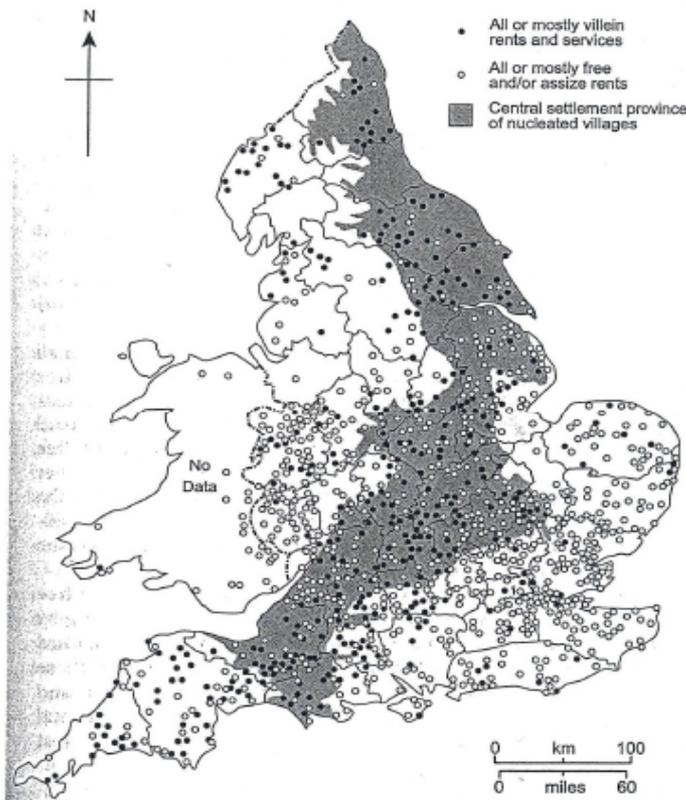
- (1) **Medieval communal (open-field) farming**: not to be confused with modern agricultural collectives (former Soviet Union, Israel)
- (2) **Private property rights**:
  - (a) **individual peasant tenants were responsible** for paying rents, tithes (church), taxes
  - (b) **private ownership of livestock, seeds, etc.**
  - (c) **agricultural net product**: remainder (after taxes, etc.) went to the peasant tenant, not to the village community.
  - (d) **freedom to sell, trade, acquire land**: despite being contrary to feudal-manorial customs and legal codes

Figure 1:1 Agricultural "Systems" in Northwestern Europe ca. 1300

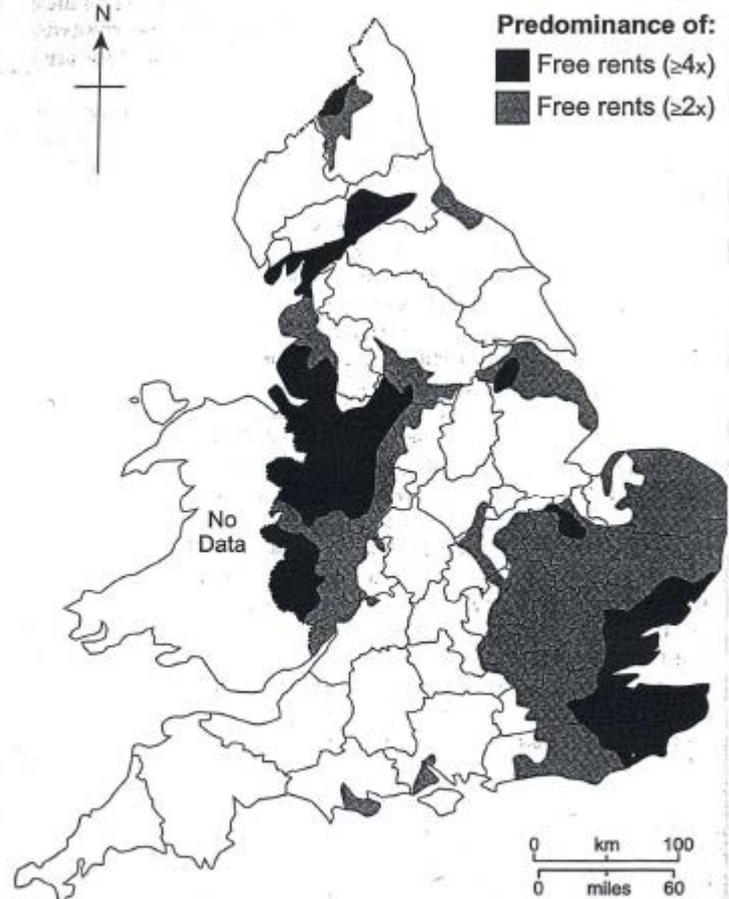




THE BOUNDARIES OF THE OPEN-FIELD SYSTEM



**MAP 3**  
**LAY MANORS WITH EITHER MOSTLY FREE OR MOSTLY**  
**VILLEIN RENTS 1300-1349**  
 Source: IPM Database



**MAP 1**  
**THE RELATIVE IMPORTANCE OF FREE RENTS**  
**ON LAY MANORS 1300-1349**

Source: IPM Database

## THE OPEN FIELDS OF LAXTON PARISH

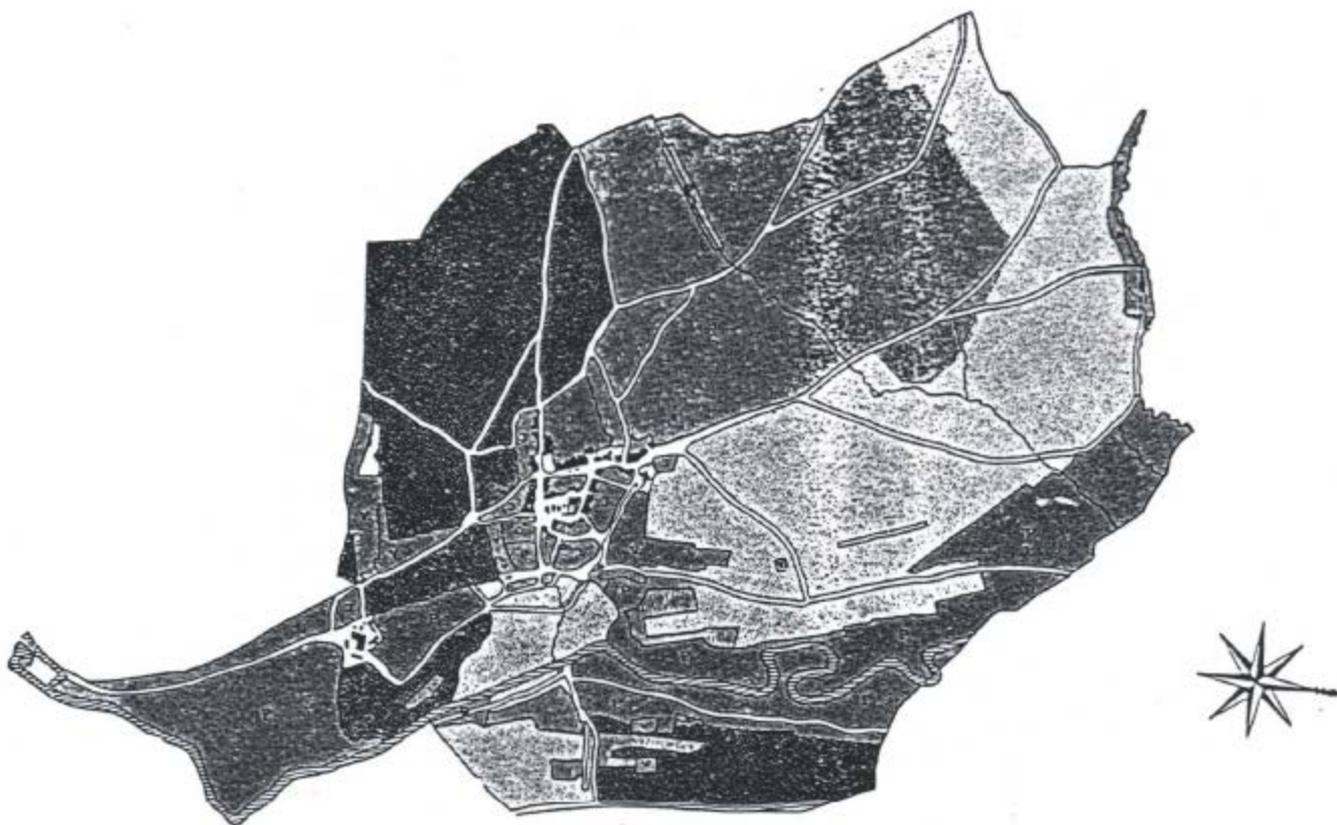
**The only surviving open-field village in modern day England**



*Aerial photograph  
showing the open fields of  
Laxton parish*

*(Cambridge University Collection  
of Air Photographs, Unit for  
Landscape Modelling)*

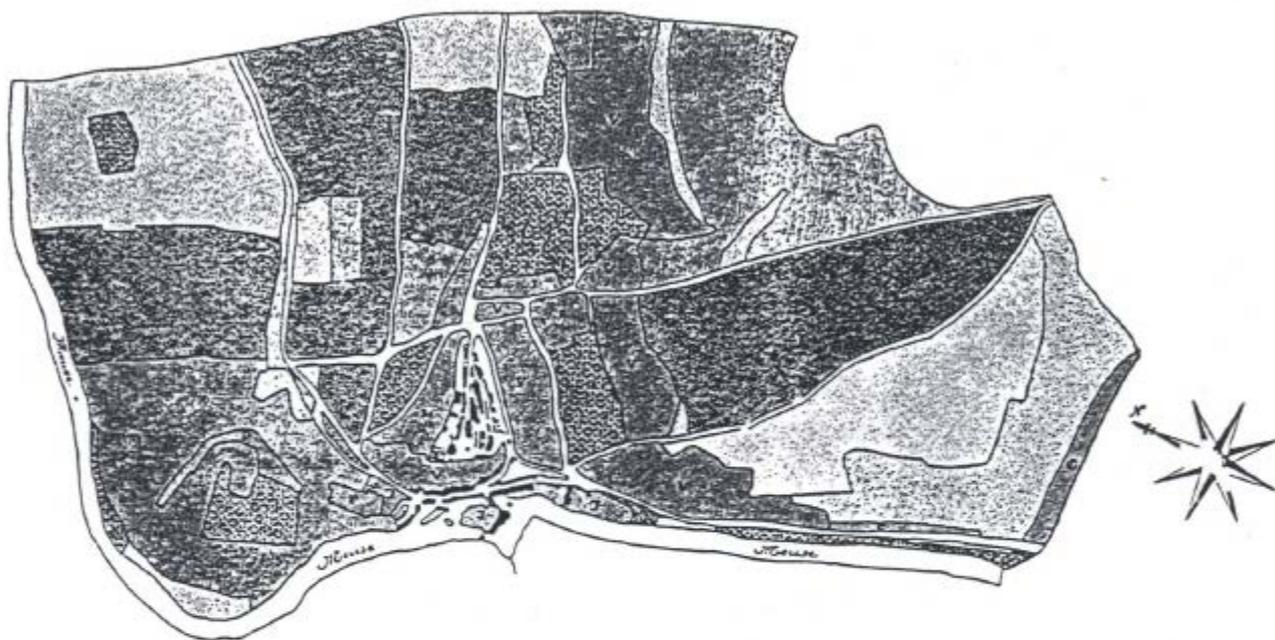




IV. MAP SHOWING CROP ROTATION: I. Seasonal map of Monblainville (Meuse, cant. Varennes), 1769, after the map in the Cabinet des Titres, Chantilly, E reg. 35. Note that in this instance the same rotation is observed over large blocks of land.

- |   |  |   |  |
|---|--|---|--|
|  | Houses.  |  | <i>Couture</i> or <i>roye</i> under the control of Sugnon or Oserois, spring-sowing. |
|  | Gardens (J), Vines (V), Oak plantations (C), Meadows (P).                |  | <i>Couture</i> or <i>roye</i> under the control of Perchie, fallow.                  |
|  | <i>Couture</i> or <i>roye</i> under the control of Cour or Noyer, wheat. |  | Communal meadows or rough grazing.   |

The odd snippets of fields visible to the east probably represent clearances of relatively recent date.



V. MAP SHOWING CROP ROTATION: II. Seasonal map of Dun sur Meuse (Meuse). 1783, after the map in the Cabinet des Titres, Chantilly, E reg. 39. Note that in this instance the rotations are not observed over large continuous blocks as in Plate IV, and that some lands are altogether 'out of course'.

	Houses.
	Gardens and orchards (J), Vines (V), Oaks (C), Meadows (P).
	Culture under wheat.
	Culture under spring sowing.
	Culture under fallow ( <i>versaine</i> ).
	Lands out of course and sown at will.
	Communal grazing.

# Manorialism & Serfdom as Barriers to Markets and Economic Growth

- (1) **Peasant conservatism:** need for **communal consent to all major changes (village elders)**, with a rational mentality of risk aversion
- (2) **Absence of centralized manorial control over the village economies** – even in medieval England (where lords were more commercialized)

# Manorialism & Serfdom as Barriers to Growth 2

- (3) **Low productivity of manorial farming:**
- - especially with **serfdom and feudal exploitation**
- - **but this lessened in later medieval era**, especially with the English **Enclosure movements** (next lectures)
- - **and northern manorialism was still more productive** than non-manorial Mediterranean agriculture
- (4) **Peasant immobility & disguised unemployment** → **inelastic labour supplies**
- **economic growth** requires fluid, elastic labour supply

# Manorialism & Serfdom as Barriers to Growth 3

- (5) **Manorial economy was generally unresponsive to market forces:**
- **virtual impossibility of mortgaging communal lands**
- **but also changed in later medieval era: with manorial sales and finally with Enclosures**
- (6) **Manorial lords: unproductive use of manorial surpluses (economic rents), spent on conspicuous consumption and warfare**

# Later medieval erosion of western manorialism

- (1) **with growth & diffusion of fully monetized market economies:** with credit
- (2) **The decline of serfdom in the West**
- (3) **The decay of feudal landownership:** → manorial estates passed to **bourgeois owners**
- (4) **The Tudor-Stuart Enclosure movements:** the **elimination of Common Fields**, with communal rights → **replaced with privately run farms:**
- - **but enclosures were rarely found outside of England.**