THE MODERN WORLD-SYSTEM I

Capitalist Agriculture and the Origins of the European World-Economy in the Sixteenth Century

WITH A NEW PROLOGUE

IMMANUEL WALLERSTEIN

"Allegory of Trade," woodcut by Jobst Amman (1539–1591), who lived in Nuremberg. He was one of the "Little Masters." This bottom detail illustrated the house of a merchant of Nuremberg, still a flourishing center of trans-European trade.

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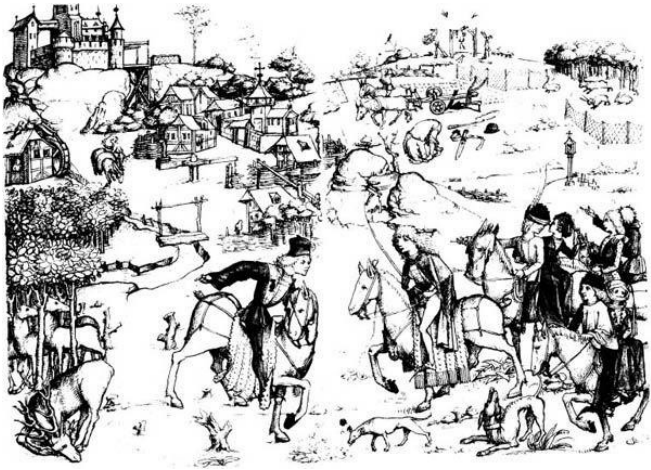

Figure 2: "The Foxhunt," from *Das Mittelälterliche Hausbuch*, ink drawing by an anonymous German artist, active 1475–1490, known as the Master of the Housebook.

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MEDIEVAL PRELUDE

In the late fifteenth and early sixteenth century, there came into existence what we may call a European world-economy. It was not an empire yet it was as spacious as a grand empire and shared some features with it. But it was different, and new. It was a kind of social system the world has not really known before and which is the distinctive feature of the modern world-system. It is an economic but not a political entity, unlike empires, city-states and nation-states. In fact, it precisely encompasses within its bounds (it is hard to speak of boundaries) empires, city-states, and the emerging "nation-states." It is a "world" system, not because it encompasses the whole world, but because it is larger than any juridically-defined political unit. And it is a "world-*economy*" because the basic linkage between the parts of the system is economic, although this was reinforced to some extent by cultural links and eventually, as we shall see, by political arrangements and even confederal structures.

An empire, by contrast, is a political unit. For example, Shmuel Eisenstadt has defined it this way:

> The term "empire" has normally been used to designate a political system encompassing wide, relatively high centralized territories, in which the center, as embodied both in the person of the emperor and in the central political institutions, constituted an autonomous entity. Further, although empires have usually been based on traditional legitimation, they have often embraced some wider, potentially universal political and cultural orientation that went beyond that of any of their component parts.[1]

Empires in this sense were a constant feature of the world scene for 5,000 years. There were continuously several such empires in various parts of the world at any given point of time. The political centralization of an empire was at one and the same time its strength and its weakness. Its strength lay in the fact that it guaranteed economic flows from the periphery to the center by force (tribute and taxation) and by monopolistic advantages in trade. Its weakness lay in the fact that the bureaucracy made necessary by the political structure tended to absorb too much of the profit, especially as repression and exploitation bred revolt which increased military expenditures.[2] Political empires are a primitive means of economic domination. It is the social achievement of the modern world, if you will, to have invented the technology that makes it possible to increase the flow of the surplus from the lower strata to the upper strata, from the periphery to the center, from the majority to the minority, by eliminating the "waste" of too cumbersome a political superstructure.

I have said that a world-economy is an invention of the modern world. Not quite. There were world-economies before. But they were always transformed into empires: China, Persia, Rome. The modern world-economy might have gone in that same direction—indeed it has sporadically seemed as though it would—except that

the techniques of modern capitalism and the technology of modern science, the two being somewhat linked as we know, enabled this world-economy to thrive, produce, and expand without the emergence of a unified political structure.[3]

What capitalism does is offer an alternative and more lucrative source of surplus appropriation (at least more lucrative over a long run). An empire is a mechanism for collecting tribute, which in Frederic Lane's pregnant image, "means payments received for protection, but payments in excess of the cost of producing the protection."[4] In a capitalist world-economy, political energy is used to secure monopoly rights (or as near to it as can be achieved). The state becomes less the central economic enterprise than the means of assuring certain terms of trade in other economic transactions. In this way, the operation of the market (not the *free* operation but nonetheless its operation) creates incentives to increased productivity and all the consequent accompaniment of modern economic development. The world-economy is the arena within which these processes occur.

A world-economy seems to be limited in size. Ferdinand Fried observed that:

> If one takes account of all the factors, one reaches the conclusion that the space of the 'world' economy in Roman antiquity could be covered in about 40 to 60 days, utilizing the best means of transport. . . . Now, in our times [1939], it also takes 40 to 60 days to cover the space of the modern world economy, if one uses the normal channels of transportation for merchandise.[5]

And Fernand Braudel adds that this could be said to be the time span of the Mediterranean world in the sixteenth century.[6]

The origins and the functioning of such a 60–day European world-economy[7] in the sixteenth century is our concern here. It is vital to remember, however, that Europe was not the only world-economy at the time. There were others.[8] But Europe alone embarked on the path of capitalist development which enabled it to outstrip these others. How and why did this come about? Let us start by seeing what happened in the world in the three centuries prior to 1450. In the twelfth century, the Eastern Hemisphere contained a series of empires and small worlds, many of which were interlinked at their edges with each other. At that time, the Mediterranean was one focus of trade where Byzantium, Italian city-states, and to some extent parts of northern Africa met. The Indian Ocean–Red Sea complex formed another such focus. The Chinese region was a third. The Central Asian land mass from Mongolia to Russia was a fourth. The Baltic area was on the verge of becoming a fifth. Northwest Europe was however a very marginal area in economic terms. The principal social mode or organization there was what has come to be called feudalism.

We must be very clear what feudalism was not. It was not a "natural economy," that is, an economy of self-subsistence. Western Europe feudalism grew out of the disintegration of an empire, a

disintegration which was never total in reality or even *de jure*.[9] The myth of the Roman Empire still provided a certain cultural and even legal coherence to the area. Christianity served as a set of parameters within which social action took place. Feudal Europe was a "civilization," but not a world-system.

It would not make sense to conceive of the areas in which feudalism existed as having two economies, a market economy of the towns and a subsistence economy of the rural manors. In the twentieth century, with reference to the so-called underdeveloped world, this approach has gone under the label of the "dual economy" theory. Rather, as Daniel Thorner suggests:

> We are sure to deceive ourselves if we think of peasant economies as oriented exclusively towards their own subsistence and term "capitalist" any orientation towards the "market." It is more reasonable to start by assuming that, for many centuries, peasant economies have had both orientations.[10]

For many centuries? How many? B. H. Slicher van Bath, in his major work on European agrarian history, marks the turning point at about 1150 A.D.. Even before then, he does not think Western Europe was engaged in subsistence farming, but rather from 500 A.D. to c. 1150 A.D. in what he calls "direct agricultural consumption," that is, a system of partial self-sufficiency in which, while most people produce their own food, they also supply it to the nonagricultural population as barter. From 1150 A.D. on, he considers Western Europe to have reached that stage of "indirect agricultural consumption," a stage we are still in today.[11]

What we should envisage then, when we speak of western European feudalism, is a series of tiny economic nodules whose population and productivity were slowly increasing, and in which the legal mechanisms ensured that the bulk of the surplus went to the landlords who had noble status and control of the juridical machinery. Since much of this surplus was in kind, it was of little benefit unless it could be sold. Towns grew up, supporting artisans who bought the surplus and exchanged it for their products. A merchant class came from two sources: On the one hand, agents of the landlords who sometimes became independent, as well as intermediate size peasants who retained enough surplus after payments to the lord to sell it on the market[12]; on the other hand, resident agents of long-distance merchants (based often in northern Italian city-states and later in the Hanseatic cities) who capitalized on poor communications and hence high disparities of prices from one area to another, especially when certain areas suffered natural calamities.[13] As towns grew, of course, they offered a possible refuge and place of employment for peasants which began to change some of the terms of relationship on the manor.[14]

Feudalism as a system should not be thought of as something antithetical to trade. On the contrary, up to a certain point, feudalism and the expansion of trade go hand in hand. Claude Cahen suggests that if scholars have often observed this phenomenon in areas *other*

than western Europe,[15] perhaps they have failed to notice the same phenomenon in Western feudalism because of ideological blinkers. "Having thus noted the possibility of convergence, *up to a certain stage of development only*, of the development of feudalism and of commerce, we ought to reconsider, from this point of view, the history of the West itself."[16]

Yet a feudal system could only support a limited amount of long-distance trade as opposed to local trade. This was because long-distance trade was a trade in luxuries, not in bulk goods. It was a trade which benefited from price disparities and depended on the political indulgence and economic possibilities of the truly wealthy. It is only with the expansion of production within the framework of a modern world-economy that long-distance trade could convert itself in part into bulk trade which would, in turn, feed the process of expanded production. Until then, as Owen Lattimore notes, it was not really what we mean today by trade:

> As late as the time of Marco Polo (at least) the trade of the merchant who ventured beyond his own district depended delicately on the whims of potentates. . . . The distant venture was concerned less with the disposal of goods in bulk and more with curiosities, rarities and luxuries. . . . The merchant sought out those who could extend favor and protection. . . . If he were unlucky he might be plundered or taxed to ruination; but if he were lucky he received for his goods not so much an economic price as a munificent largesse. . . . The structure of the silk trade and that of much other trade was more a tribute structure than a trade structure.[17]

Thus, the level of commercial activity was limited. The principal economic activity remained food and handicraft production traded within small economic regions. Nonetheless, the scale of this economic activity was slowly expanding. And the various economic nuclei expanded therewith. New frontier lands were cultivated. New towns were founded. Population grew. The Crusades provided some of the advantages of colonial plunder. And then sometime in the fourteenth century, this expansion ceased. The cultivated areas retracted. Population declined. And throughout feudal Europe and beyond it, there seemed to be a "crisis," marked by war, disease, and economic hardship. Whence came this "crisis" and what were its consequences?

First, in what sense was there a crisis? Here there is some disagreement, not so much as to the description of the process as to the emphasis in causal explanation. Edouard Perroy sees the issue primarily as one of an optimal point having been reached in an expansion process, of a saturation of population, "an enormous density, given the still primitive state of agrarian and artisanal technology."[18] And lacking better plows and fertilizer little could be done to ameliorate the situation. This led to food shortages which in turn led to epidemics. With a stable money supply, there was a moderate rise in prices, hurting the rentiers. The slow deterioration of the situation was then rendered acute by the beginnings of the

Hundred Years War in 1335–1345, which turned western European state systems toward a war economy, with the particular result that there was an increased need for taxes. The taxes, coming on top of already heavy feudal dues, were too much for the producers, creating a liquidity crisis which in turn led to a return to indirect taxes and taxes in kind. Thus started a downward cycle: The fiscal burden led to a reduction in consumption which led to a reduction in production and money circulation which increased further the liquidity difficulties which led to royal borrowing and eventually the insolvency of the limited royal treasuries, which in turn created a credit crisis, leading to hoarding of bullion, which in turn upset the pattern of international trade. A rapid rise in prices occurred, further reducing the margin of subsistence, and this began to take its toll in population. The landowner lost customers and tenants. The artisan lost customers. There was turn from arable to pasture land because it required less manpower. But there was a problem of customers for the wool. Wages rose, which was a particular burden for small and medium-sized landowners who turned to the State for protection against wage rises. "The disaggregation to manorial production, which becomes ever more severe after 1350, is proof of a continuous slump . . . [of] mediocrity in stagnation."[19]

Stagnation is, on the face of it, a curious consequence. One might have expected the following scenario. Reduced population leads to higher wages which, with rents relatively inelastic, would mean a change in the composition of demand, shifting part of the surplus from lord to peasant, and hence ensuring that less of it would be hoarded. Furthermore, a reduction of population in an economy that was largely agricultural should have led to parallel reductions in demand and supply. But since typically a producer will normally reduce production by eliminating the less fertile plots, there should have been an increased rate of productivity, which should have reduced prices. Both of these developments should have encouraged, not discouraged, trade. Nonetheless trade "stagnated" in fact.

What went wrong in the calculation is the implicit assumption about elasticity of demand. North and Thomas remind us that, given the state of the technology and the range of the volume of international trade, transactions costs were very high, and any reduction in volume (due to a decline in population) would set in train a process of rising costs which would lead to a further reduction in trade. They trace the process like this:

> [Previously] merchants found it profitable to reduce transactions costs by stationing factors in a distant city to acquire information about prices and possible trading opportunities; as the volume of trade shrank, this was no longer expedient. Information flows dried up and trade volume was further reduced. It is thus not surprising that economic historians have found depression (for them meaning a decreased total volume of economic activity) even in the midst of this world where higher *per capita* income would presumably have followed the relatively increased real wage that peasant and

worker must have been experiencing.[20]

R. H. Hilton accepts Perroy's description of events.[21] But he takes exception to the form of analysis which makes the crisis comparable to one of the recurrent crises of a developed capitalist system, thus exaggerating the degree to which financial and monetary dilemmas affect a feudal system in which the cash-flow element is so much smaller a part of human interaction than in capitalist society.[22] Furthermore, he suggests that Perroy omits any discussion of another phenomenon which resulted from the events Perroy describes, and which to Hilton is central, that of the unusual degree of social conflict, the "climate of endemic discontent," the peasant insurrections which took the form of a "revolt against the social system as such."[23] For Hilton, this was not therefore merely a conjunctural crisis, one point in an up and down of cyclical trends. Rather it was the culmination of 1000 years of development, the decisive crisis of a system. "During the last centuries of the Roman Empire as during the Middle Ages, society was paralyzed by the growing expense of a social and political superstructure, an expense to which corresponded no compensating increase in the productive resources of society."[24] Hilton agrees with Perroy that the immediate cause of the dilemma was to be found in technological limitations, the lack of fertilizer and the inability to expand fertilizer supply by expanding the number of cattle, because the climate limited the quantity of winter forage for cattle. But "what we should underline is that there was no large reinvestment of profits in agriculture such that would *significantly* increase productivity."[25] This was because of the inherent limitations of the reward system of feudal social organization.

What Hilton's emphasis on the *general* crisis of feudalism offers us over Perroy's sense of the conjunctural is that it can account for the social transformation these developments involved. For if the optimal degree of productivity had been passed in a system *and* the economic squeeze was leading to a generalized seignior–peasant class war, as well as ruinous fights within the seigniorial classes, then the only solution that would extract western Europe from decimation and stagnation would be one that would expand the economic pie to be shared, a solution which required, given the technology of the time, an expansion of the land area and population base to exploit. This is what in fact took place in the fifteenth and sixteenth centuries.

That peasant revolts became widespread in western Europe from the thirteenth century to the fifteenth century seems to be in little doubt. Hilton finds the immediate explanation for England in the fact that "in the 13th century most of the great estate-owners, lay and ecclesiastical, expanded their demesne production in order to sell agricultural produce on the market. . . . [As a result], labor services were increased, even doubled."[26] Kosminsky similarly talks of this period as being that of "the most intense exploitation of the English peasantry. . . ."[27] On the continent, there were a series of peasant rebellions: in northern Italy and then in coastal Flanders at the turn of the 14th century; in Denmark in 1340; in Majorca in 1351; the Jacquerie in France in 1358; scattered rebellions in Germany long

before the great peasant war of 1525. Peasant republics sprang up in Frisia in the twelfth and thirteenth centuries, and in Switzerland in the thirteenth century. For B. H. Slicher van Bath, "peasant rebellions went with economic recession."[28] Dobb suggests that when such recession occurred, it fell particularly hard not on the lowest stratum of workers who probably never were very well off but on "the upper stratum of well-to-do peasants, who were in position to extend cultivation onto new land and to improve it, and who accordingly tended to be the spearpoint of revolt."[29]

The sudden decline of prosperity involved more than peasant discontent. The depopulation which accompanied it—caused by wars, famines, and epidemics—led to the *Wüstungen*, the recession of settlements from marginal lands, the disappearance of whole villages sometimes. The desertion of villages should not be seen exclusively as a sign of recession. For there are at least two other major reasons for desertion. One, which was a continuing one, was the search for physical security whenever warfare overtook a region.[30] A second, less "accidental" and more structural, was a change in agrarian social structure, the "enclosure" or "engrossing" of land. It seems clear that this process too was going on in the late Middle Ages.[31] And it is somewhat difficult at this stage of our knowledge to disentangle the three.

Two things seem clear about the cessation of clearings and the recession of settlements. It was, as Karl Helleiner remarks, a "selective process with respect to size of holdings. The percentage of small holdings abandoned in the course of the late Middle Ages appears to have been higher than that of full-sized farms."[32] It was also selective by regions. The *Wüstungen* seemed to have been extensive not only in Germany and Central Europe,[33] but also in England.[34] It was on the other hand far more limited in France.[35] No doubt this is in part explained by the fact that France was more densely settled and earlier cleared than other areas of Europe for both historical and pedological reasons.

At this time of contracting demand for agricultural products, urban wages and hence industrial prices were rising, because of the shortage of labor bred by population decline. This in turn raised the cost of agricultural labor while reducing rents (insofar as they were fixed while nominal prices were inflating). This led to what Marc Bloch has called the "momentary impoverishment of the seigniorial class."[36] Not only were profits diminished but the costs of management rose, as they always do in difficult times,[37] leading owners to consider shedding direct management. The economic squeeze led to increased exactions on the peasantry which were then counterproductive, and resulted in peasant flight.[38] One path to the restoration of income for the nobility, one often efficacious for the wealthiest stratum, was to involve themselves in new and remunerative careers with the princes.[39] It was not however sufficient to counteract the effects of recession and therefore to stem the decline of the demesne.[40] And it may incidentally, by removing seigniors from residence, have encouraged disinterest in

management.

What then happened to the large estates? They were sold or rented for money to the principal group ready and able to engage in such a transaction, the better off peasants, who were in a position to obtain favorable terms.[41]

We must however remember that the social organization of agricultural production was not identical everywhere. The demesnes were the largest in western Europe, in part because denser population had required the relative efficiency of larger units. In central Europe, the effects of economic recession led to the same desertion of marginal lands, but the analysis of these *Wüstungen* is complicated by the fact that they represented in part enclosures as well as abandonment.[42] Further to the east, in Brandenburg and Poland, as we shall discuss later, where population density was even thinner, the lords who collectively previously owned less land than the peasants "saw their estates acquiring all the lands left deserted by the sudden demographic collapse."[43] How profitable this would be for them in the sixteenth century, how profoundly this would alter the social structure of eastern Europe, how important this would be for the development of western Europe—all this was doubtless outside the ken of the participants in the fourteenth and fifteenth centuries. But in the *nonmarginal* arable land areas of *western* Europe, the *excessively large* demesne gives way to smaller landholdings. Thus, simultaneously, there is the rise of a medium-sized peasantry on arable land in western Europe, the beginning of enclosures of less arable lands in western Europe (which would be the basis of expanded animal husbandry), and the concentration of property into large estates in eastern Europe (which would come to serve a new function as grain export areas).

Was this period of economic "collapse" or "stagnation" good or bad for the development of a capitalist world-economy? It depends on the length of one's perspective. Michael Postan sees the fifteenth century as a regression from the developments of the fourteenth,[44] a setback which to be sure was later overcome. Eugen Kosminsky sees it as part of the liquidation of feudalism, hence a necessary step in the development of a capitalist economy.[45] The facts are the same. The theoretical perspective is different.

Thus far, in this discussion, we have scarcely mentioned the developments in the political sphere, and in particular the slow rise of the centralized state bureaucracy. In the heyday of western feudalism, when the state was weakest, the landowner, the lord of the manor thrived. However much, in a later era, the state machinery might be utilized by the nobility to further their interests, they were doubtless better served still by the weakness of kings and emperors. Not only were they personally freer of control and taxation but they were also freer to control and tax the peasants. In such societies, where there is no effective link between the central authority with its legal order and the masses, the effect of violence was double, since as Bloch noted, "through the play of custom, an abuse might always by mutation become a precedent, a precedent a right."[46]

Lords of the manor then would never welcome the strengthening

of the central machinery if they were not in a weakened condition in which they found it more difficult to resist the claims of central authority and more ready to welcome the benefits of imposed order. Such a situation was that posed by the economic difficulties of the fourteenth and fifteenth centuries, and the decline of seigniorial revenues.

Alongside the economic dilemmas occurred a technological shift in the art of war, from the long bow to the cannon and the handgun, from the cavalry war to the one in which infantry charged and hence in which more training and discipline was required. All this meant that the cost of war increased, the number of men required rose, and the desirability of a standing army over ad hoc formations became ever more clear. Given the new requirements, neither the feudal lords individually nor the city-states could really foot the bill or recruit the manpower, especially in an era of depopulation.[47] Indeed, even the territorial states were having a hard job of maintaining order, as the frequency of peasant revolts shows.[48]

The fifteenth century, however, saw the advent of the great restorers of internal order in western Europe: Louis XI in France, Henry VII in England, and Ferdinand of Aragon and Isabella of Castile in Spain. The major mechanisms at their disposition in this task, as for their less successful predecessors, were financial: by means of the arduous creation of a bureaucracy (civil and armed) strong enough to tax and thus to finance a still stronger bureaucratic structure. This process had started already in the twelfth and thirteenth centuries. With the cessation of the invasions, which had previously preoccupied and exhausted the princes, the growth of population, the revival of trade and hence the more abundant circulation of money, there was a basis for the taxation which could pay for salaried officials and troops.[49] This was true not only in France, England, and Spain but in the principalities of Germany as well.

Taxes are to be sure the key issue. And it is not easy to begin the upward cycle.[50] The obstacles to an effective taxation system in the late Middle Ages seem in retrospect overwhelming. Taxation can only in reality be on net production, and net production was low, as was the quantity of money, as well as its circulation. It was extremely difficult to verify taxes both because of a lack of personnel and because of the low level of quantified record keeping. It is no wonder that rulers constantly resorted to alternatives to taxation as sources of income: to confiscation, to borrowing, to selling state offices, to debasing the coinage. But each of these alternatives, while they may have solved financial dilemmas of the moment, had some negative long-term effects on the politico-economic strength of the king.[51] Still it would be false to emphasize the difficulties. It is the magnitude of the achievement that is impressive. The many compromises might be seen as essential steps on the road to success. Tax-farming[52] and the venality of office[53] can be seen precisely as two such useful compromises. Furthermore, the increased flow of funds to the king not only hurt the nobility by strengthening the state, but also by weakening the nobility's own sources of revenue,

especially in the tighter economy of the fourteenth and fifteenth centuries, and especially for those not linked to the new bureaucracies. As Duby puts it: "A large part of the revenues extracted from the soil by the peasants still found its way into the lord's hands, but the endless progress of taxation had greatly enlarged the share taken by the agents of the State."[54]

And as the state grew stronger, monetary manipulation became more profitable. When in the fourteenth and fifteenth centuries, the financial crises of states beset by war were compounded by low profit margins in the countryside that could be taxed, the states had to find other sources of revenue, especially since depopulation meant that princes were offering exemptions from taxation to those who would recolonize devastated areas. Monetary manipulation thus had many advantages. Léopold Génicot points out that there are three possible explanations for the frequent debasements of the period: the reduction of state debts (although debasement also thereby reduces fixed revenues, which constituted the bulk of income from royal domains); scarcity of means of payment, at a time when trade was growing more than the stocks of silver and when public disorder encouraged hoarding of bullion; or a deliberate economic policy of lowering the exchange rate to arrest deflation, combat hoarders, facilitate exports and thus revive commerce. Whichever the explanation of the debasements, they were "very largely inflationary" and "reduced in this way the real value of fixed revenues."[55] The principal recipients of fixed revenues were the seigniorial classes, and hence they were weakened vis-à-vis the state.

The state? What was the state? At this time, it was the prince, the prince whose reputation was lauded, whose majesty was preserved, who little by little was removed from his subjects.[56] And it was the bureaucracy which emerged now as a distinctive social grouping with special characteristics and interests, the principal ally of the prince,[57] and yet one which, as we shall see, was to remain an ambivalent one. And it was the various parliamentary bodies the sovereigns created as mechanisms to assist them in the legislating of taxes, bodies composed largely of nobles, which the kings tried to use against the nobility and the nobility against the king.[58]

This state was a creation which dates not from the sixteenth century but from the thirteenth century in western Europe. Yves Renouard has traced how the boundary lines that determine to this day the frontiers of France, England, and Spain were more or less definitively settled in a series of battles which occurred between 1212 and 1214.[59] It was on the basis of these lines rather than some others (for example, a Mediterranean Occitanian state including Provence and Catalonia; or an Atlantic state including the western France of the Angevins as part of England) that later nationalist sentiments were constructed. First the boundaries, later the passions is as true of early modern Europe as, say, of twentieth-century Africa. It was at this period that not only were the boundary lines decided but, even more important, it was decided that there would be boundary lines. This is what Edouard Perroy calls the "fundamental change" in the political structure of western Europe.[60]

In his view, it is between the middle of the twelfth century and the beginning of the fourteenth, in short at the height of commercial and agricultural prosperity of the Middle Ages, that we can date the transformation of Europe.

Why nation-states and not empires? Here we must be prudent about our terminology. Perhaps we should think of France of the thirteenth and fourteenth centuries as a nation-state, of France of the fifteenth and sixteenth centuries as an empire, of the seventeenth century as a nation-state again. This is what Fernand Braudel seems to think.[61] Why this pattern of alternation? Braudel suggests that "there was, with the economic expansion of the 15th and 16th centuries, a conjuncture stubbornly favorable to vast, even very vast States, to these 'thick States'. . . . In fact, history is, in turn, favorable and unfavorable to vast political structures."[62] Fritz Hartung and R. Mousnier suggest the need for a minimum size (but also a maximum?) for the establishment of an absolute monarchy, a form which did not succeed in little States. "Doubtless, the latter could not constitute military and economic units large enough to sustain an absolute monarchy."[63] These are but hints at answers to a problem worth considerable theoretical attention. V. G. Kiernan helps us perhaps the most with the following conceptual clarification:

> No dynasty set out to build a nation-state; each aimed at unlimited extension . . . and the more it prospered the more the outcome was a multifarious empire *manqué*. It had to be large enough to survive and sharpen its claws on its neighbours, but small enough to be organized from one centre and to feel itself as an entity. On the closepacked western edge of Europe, any excessive ballooning of territory was checked by competition and geographical limits.[64]

Unless, of course, they extended their empires overseas.

What would happen to those empires *manqué* was that they would develop different *raisons d'état* from empires, different ideologies. A nation-state is a territorial unit whose rulers seek (sometimes seek, often seek, surely not always seek) to make of it a national society—for reasons we shall discuss later. The affair is even more confusing when we remember that from the sixteenth century on, the nation-states of western Europe sought to create relatively homogeneous national societies at the core of empires, using the imperial venture as an aid, perhaps an indispensable one, to the creation of the national society.

We have discussed the crisis of western feudalism in the fourteenth and fifteenth centuries as the background for, prelude to, the expansion of Europe and its economic transformation since the sixteenth century. Thus far the discussion and the explanations have been largely in terms of the social structure (the organization of production, the state machinery, the relationship of various social groups). Yet many would feel that the "crisis" of the fourteenth century and the "expansion" of the sixteenth could be accounted for, let us say in significant part, by factors of the physical environment—climate, epidemiology, soil conditions. These arguments cannot be

lightly dismissed and the factors should be assessed and given their due weight in accounting for the social change that did occur.

The case for climate has been put most strongly by Gustaf Utterström. The argument in summary goes like this:

> Thanks to industrialism, thanks not least to technical progress, man in our own day is less exposed to the whims of Nature than he was in previous centuries. But how often is it considered that another factor is that we are living in an age in which the climate, especially in northern Europe, is unusually mild? During the last 1000 years, . . . the periods of prosperity in human affairs have on the whole, though with important exceptions, occurred during the warm intervals between the great glaciations. It is in these same intervals that both economic life and the size of the populations have made the greatest advances.[65]

To strengthen his case, Utterström reminds us that climatic change might have had special bearing on the earlier periods in the transformation of Europe. "The primitive agriculture of the Middle Ages must have been much more dependent on favorable weather than is modern agriculture with its high technical standards."[66]

Utterström points for example to the severe winters of the fourteenth and early fifteenth centuries, the mild winters from 1460 to the mid-16th century, the severe winters of the second half of the seventeenth,[67] which corresponds *grosso modo* to economic recession, expansion, and recession.

> To regard population pressure as the decisive factor does not provide a satisfactory explanation of these economic developments. The fact that the population increased in the way it did raises a question which has not so far been asked: why did the population increase? . . . The great increase in population was . . . general throughout Europe. In northern and central Europe it got well under way during the period when the climate was unusually mild. This can scarcely be a chance coincidence: there must be a causal connection.[68]

In addition, Utterström makes epidemiological factors intervening variables. He explains the Black Plague by hot summers which led to the multiplication of the black rat, the host to the rat flea, one of the two carriers of the plague.[69]

Georges Duby acknowledges that this hypothesis must be taken seriously. Certainly some of the fourteenth century abandonments of cultivation (cereals in Iceland, the Scandinavian colonies in Greenland, the lowered forest limit in Sudetenland, the end of viticulture in England and its regression in Germany) are all plausibly explained by climatic change. But there are alternative plausible explanations. Most importantly, Duby reminds us that "agrarian recession, like the demographic collapse, started before the beginning of the fourteenth century,"[70] hence before the presumed climatic changes. Instead, Duby would see climatic factors and then

epidemiology as being cumulative woes which, in the fourteenth century, "dealt a crushing blow to the already fragile demographic structure."[71] Similar skepticism about the temporal primacy of climatic change in explaining the ups and downs have been expressed by Helleiner,[72] Slicher van Bath,[73] and Emmanuel Le Roy Ladurie.[74]

Obviously, to the extent that there was climatic change, it would affect the operations of a social system. Yet equally obviously, it would affect different systems differently. Though opinions differ, it is probable that such glaciation as did occur was spread over the whole Northern Hemisphere, yet social developments in Asia and North America were clearly divergent from those in Europe. It would be useful therefore to return to the chronic factor of resource strain involved in the feudal system of social organization, or overconsumption by a minority given the overall low level of productivity. Norman Pounds reminds us of "how small the margin for security was for the medieval peasant even under conditions that might be termed normal or average. . . ."[75] Slicher van Bath tends to corroborate this hypotheses of prolonged undernourishment by observing that it was precisely in protein-producing regions that men were most resistant to the plague.[76]

If however there was first economic regression because of the chronic overexploitation and resulting rebellions discussed previously, and then climatic factors added on both food shortages and plagues, it is easy to see how the socio–physical conjuncture could achieve "crisis" proportions. The crisis would in turn be aggravated by the factor that the plague, once it spread, became endemic.[77] Furthermore, although fewer men should have meant more food since the landmass remained the same, it also meant a shift to pasturage and hence a reduction of caloric output. The demographic decline thus became endemic too.[78] Pierre Chaunu adds that "the collapse of rent, the diminution of profits and the aggravation of seigniorial burdens" may have worsened the situation further by turning capital investment away from the land.[79] And Dobb suggests that the resulting phenomenon of commutation may have further increased the burden of the peasant, rather than mitigating it as usually assumed, thereby adding to the dilemma.[80] Thus, intruding the variables of the physical environment does not undo our previous analysis. It enriches it by adding a further element to help explain a historical conjuncture so consequential in the future history of the world, a further instance in which long-term stabilities and slow secular changes can account for conjunctures which have the power to change social structures which are intermediate from the perspective of temporal duration.

The analysis thus far is as follows. In Europe in the late Middle Ages, there existed a Christian "civilization" but neither a world-empire nor a world-economy. Most of Europe was feudal, that is, consisted of relatively small, relatively self-sufficient economic nodules based on a form of exploitation which involved the relatively direct appropriation of the small agricultural surplus produced within a manorial economy by a small class of nobility. Within Europe, there were at least two smaller world-economies, a medium-sized one

based on the city-states of northern Italy and a smaller one based on the city-states of Flanders and northern Germany. Most of Europe was not directly involved in these networks.

From about 1150 to 1300, there was an expansion in Europe within the framework of the feudal mode of production, an expansion at once geographic, commercial, and demographic. From about 1300 to 1450, what expanded contracted, again at the three levels of geography, commerce, and demography.

This contraction following the expansion caused a "crisis," one which was visible not only in the economic sphere but in the political sphere as well (internecine wars among the nobility and peasant revolts being the two main symptoms). It was also visible at the level of culture. The medieval Christian synthesis was coming under multitudinous attack in all the forms which later would be called the first stirrings of "modern" Western thought.

There are three main explanations of the crisis. One is that it was the product essentially of cyclical economic trends. The optimal point of expansion given the technology having been reached, there followed a contraction. The second is that it was the product essentially of a secular trend. After a thousand years of surplus appropriation under the feudal mode, a point of diminishing returns had been reached. While productivity remained stable (or even possibly declined as a result of soil exhaustion) because of the absence of structured motivation for technological advance, the burden to be borne by the producers of the surplus had been constantly expanding because of the growing size and level of expenditure of the ruling classes. There was no more to be squeezed out. The third explanation is climatological. The shift in European metereological conditions was such that it lowered soil productivity and increased epidemics simultaneously.

The first and the third explanation suffer from the fact that similar cyclical and climatological shifts occurred at other places and times without producing the consequence of creating a capitalist world-economy as a solution to the problems. The secular explanation of crisis may well be correct but it is inherently difficult to create the kind of serious statistical analysis that would demonstrate that it was a sufficient explanation of the social transformation. I believe it is most plausible to operate on the assumption that the "crisis of feudalism" represented a conjuncture of secular trends, an immediate cyclical crisis, and climatological decline.

It was precisely the immense pressures of this conjuncture that made possible the enormity of the social change. For what Europe was to develop and sustain now was a new form of surplus appropriation, a capitalist world-economy. It was to be based not on direct appropriation of agricultural surplus in the form either of tribute (as had been the case for world-empires) or of feudal rents (as had been the system of European feudalism). Instead what would develop now is the appropriation of a surplus which was based on more efficient and expanded productivity (first in agriculture and later in industry) by means of a world market mechanism with the "artificial" (that is, nonmarket) assist of state machineries, none of which controlled the world market in its entirety.

It will be the argument of this book that three things were essential to the establishment of such a capitalist world-economy: an expansion of the geographical size of the world in question, the development of variegated methods of labor control for different products and different zones of the world-economy, and the creation of relatively strong state machineries in what would become the core-states of this capitalist world-economy.

The second and third aspects were dependent in large part on the success of the first. The territorial expansion of Europe hence was theoretically a key prerequisite to a solution for the "crisis of feudalism." Without it, the European situation could well have collapsed into relative constant anarchy and further contraction. How was it then that Europe seized upon the alternative that was to save it? The answer is that it was not Europe that did so but Portugal, or at least it was Portugal that took the lead.

Let us look now at what it was in the social situation of Portugal that can account for the thrust toward overseas exploration which Portugal began right in the midst of the "crisis." To understand this phenomenon, we must start by remembering that Europe's geographical expansion started, as we have already suggested, earlier. Archibald Lewis argues that "from the eleventh to the mid-thirteenth century western Europe followed an almost classical frontier development."[81] He refers to the gradual reconquest of Spain from the Moors, the recuperation by Christian Europe of the Balaeric Islands, Sardinia, and Corsica, the Norman conquest of southern Italy and Sicily. He refers to the Crusades with its addition first of Cyprus, Palestine and Syria, then of Crete and the Aegean Islands. In Northwest Europe, there was English expansion into Wales, Scotland, and Ireland. And in eastern Europe, Germans and Scandinavians penetrated the lands of, conquered, and converted to Christianity Balts and Slavs. "The most important frontier [however] was an internal one of forest, swamp, marsh, moor, and fen. It was this wasteland which Europe's peasants settled and largely put into cultivation between the years 1000 and 1250."[82] Then, as we have seen, this expansion and this prosperity was brought to an end by a "crisis" which was also a contraction. In political terms, this involved the rally of the Moors in Granada, the expulsion of the Crusaders from the Levant, the reconquest of Constantinople by the Byzantines in 1261, the Mongol conquest of the Russian plain. Internally, in Europe, there were the *Wüstungen*.

The great explorations, the Atlantic expansion, was thus not the first but the second thrust of Europe, one that succeeded because the momentum was greater, the social and technological base more solid, the motivation more intense. Why however a thrust whose initial center was Portugal? In 1250 or even 1350, few would have thought Portugal a likely candidate for this role. And retrospectively from the twentieth century, it clashes with our sense of probability, our bias against the minor power Portugal has been in modern times and indeed throughout all of history.

We shall try to answer this question in terms of motivation and capabilities. The motivations were European in scope, though some of them may have been felt more acutely in Portugal. What were the

explorers looking for? Precious metals and spices, the schoolboy textbooks tell us. And this was true, to be sure, up to a point.

In the Middle Ages, Christian Europe and the Arab world were in a symbiotic relationship in terms of gold and silver. In Andrew Watson's phrase, "in monetary matters, . . . the two regions should be treated as a whole."[83] The former minted silver, the latter gold. As a result of a long-term disequilibrium in prices, whose origins are complex and need not concern us here, the silver flowed eastward leading to an abundance in the Arab world. Silver exports could no longer lead to gold imports. In 1252, Florence and Genoa therefore struck new gold coins. The motive was there. One fact which made it possible was the expansion of the trans-Saharan gold trade in the thirteenth century.[84] Watson thinks it is implausible to talk of a gold shortage, therefore, in western Europe between 1250 and 1500, for it was a time of increasing supply. Still there remained a constant outflow of precious metals from Europe to India and China via Byzantium and the Arab world, although the disequilibrium was lessening. Watson talks, somewhat mysteriously, of the "strong power of India and China to attract precious metals from other parts of the world."[85] The demand for bullion thus remained high. Between 1350 and 1450, the silver mines in Serbia and Bosnia began to develop[86] and became an important source until the Turkish invasion of the fifteenth century cut them off from western Europe. Similarly, beginning in 1460, there was a sudden rise of silver mining in central Europe, made possible by technological improvements which permitted the exploitation of what had been theretofore marginal mines. Perroy estimates that between 1460 and 1530 silver production quintupled in central Europe.[87] Nonetheless, the supply was not keeping pace with the demand, and the search for gold by the maritime route (thus, for Sudanic gold, circumventing North African intermediaries) was unquestionably one consideration for the early Portuguese navigators.[88] When, therefore, the discovery of the Americas was to give Europe a richer source of gold than the Sudan and especially a far richer source of silver than central Europe, the economic consequences would be great.[89]

The bullion was sought to provide a monetary base for circulation within Europe but even more to export it to the Orient. For what? Again, every schoolboy knows: for spices and jewels. For whom? For the wealthy, who used them as the symbols of their conspicuous consumption. The spices were made into aphrodisiacs, as though the aristocracy could not make love otherwise. At this epoch, the relationship of Europe and Asia might be summed up as the exchange of preciosities. The bullion flowed east to decorate the temples, palaces, and clothing of Asian aristocratic classes and the jewels and spices flowed west. The accidents of cultural history (perhaps nothing more than physical scarcity) determined these complementary preferences. Henri Pirenne, and later Paul Sweezy, give this demand for luxuries a place of honor in the expansion of European commerce.[90] I am skeptical, however, that the exchange of preciosities, however large it loomed in the conscious thinking of the European upper classes, could have sustained so colossal an

enterprise as the expansion of the Atlantic world, much less accounted for the creation of a European world-economy.

In the long run, staples account for more of men's economic thrusts than luxuries. What western Europe needed in the fourteenth and fifteenth centuries was food (more calories and a better distribution of food values) and fuel. Expansion into Mediterranean and Atlantic islands, then to North and West Africa and across the Atlantic, as well as expansion into eastern Europe, the Russian steppes and eventually Central Asia provided food and fuel. It expanded the territorial base of European consumption by constructing a political economy in which this resource base was unequally consumed, disproportionately by western Europe. This was not the only way. There was also technological innovation which increased the yield of agriculture, innovation which began in Flanders as early as the thirteenth century and spread to England, but only in the sixteenth century.[91] But such technological innovation was most likely to occur precisely where there was dense population and industrial growth, as in medieval Flanders, which were the very places where it became more profitable to turn the land use to commercial crops, cattle-breeding and horticulture, which consequently "required the import of corn [wheat] in large quantities. Only then could the complicated interlocking system of agriculture and industry function to its fullest advantage."[92] Hence, the process of agricultural innovation fed rather than foreclosed the necessity of expansion.

Wheat was a central focus of new production and new commerce in the fifteenth and sixteenth centuries. At first, Europe found in northern forests and Mediterranean plains its "internal Americas," in the perceptive phrase of Fernand Braudel.[93] But internal Americas were not enough. There was expansion at the edges, first of all to the islands. Vitorino Magalhães-Godinho has put forward as a working hypothesis that agriculture was the major motivation of Portuguese colonization of the Atlantic islands, a hypothesis pursued by Joël Serrão, who noted that the development of these islands was speedy and in terms of "the tetralogy of cereals, sugar, dyes, and wine . . . . [There was] always a tendency towards monoculture, one or the other of the four products always being preferred."[94] The new wheat that was grown began to flow throughout the European continent, from the Baltic area to the Low Countries beginning in the fourteenth century[95] and as far as Portugal by the fifteenth,[96] from the Mediterranean to England and the Low Countries in the fourteenth and fifteenth centuries.[97]

Foods may be placed in a hierarchy in terms of their cost per 1000 calories. M. K. Bennett finds this hierarchy fairly stable over time and space. Milled-grain products and starchy roots and tubers are at the bottom of his eight tiers, that is, they are the cheapest, the most basic of the staples.[98] But on grains alone a good diet is not built. One of the most important complements in the European diet is sugar, useful both as a calorie source and as a substitute for fats. Furthermore, it can also be used for alcoholic drinks (particularly rum). And later on, it would be used for chocolate, a usage which the

Spaniards learned from the Aztecs, and which would become a highly appreciated drink, at least in Spain, by the seventeenth century.[99]

Sugar too was a principal motivation for island expansion. And, because of its mode of production, with sugar went slavery. This started in the eastern Mediterranean in the twelfth century and then moved westward.[100] The Atlantic expansion was simply its logical continuation. Indeed, E. E. Rich traces African slavery in Portugal back to 1000 A.D., the slaves being acquired by trade with Mohammedan raiders.[101] Sugar was a very lucrative and demanding product, pushing out wheat[102] but then exhausting the soil, so that it required ever new lands (not to speak of the manpower exhausted by its cultivation).

Fish and meat are higher on Bennett's list of categories. But they were wanted as sources of protein. Godinho cites the expansion of fishing areas as one of the key dynamics of early Portuguese exploration.[103] Meat no doubt was less important than grain, and was considerably and steadily reduced in importance in the period from 1400 to 1750[104]—a proof of a point to which we shall return, that European workers paid part of the costs of European economic development.[105] Nonetheless the desire for meat was one of the motivations of the spice trade, not the Asian spices for the aphrodisiacs of the rich but the West African grains of paradise *(Amomum melegueta)*, used as a pepper substitute as well as for the spiced wine known as hippocras.[106] These spices were "barely capable of making thin gruel acceptable."[107]

If food needs dictated the geographical expansion of Europe, the food benefits turned out to be even greater than could have been anticipated. World ecology was altered and in a way which, because of the social organization of the emergent European world-economy, would primarily benefit Europe.[108] In addition to food, the other great basic need was wood—wood for fuel, and wood for shipbuilding (and housebuilding). The economic development of the Middle Ages, and one must assume its crude forestry techniques, had led to a slow but steady deforestation of western Europe, Italy, and Spain, as well as Mediterranean islands. Oak became especially scarce.[109] By the sixteenth century, the Baltic area had begun to export wood in large quantities to Holland, England, and the Iberian peninsula.

One other need of provisioning should be mentioned, the need of clothing. There was of course the luxury trade, the demand for silks, whose ancient history was linked with the demand for jewels and spices. The growing textile industry, the first major industry in Europe's industrial development, was more than a luxury trade, however, and required materials for processing: dye-stuffs for cotton and wool textiles and gum used to stiffen the silks in the finishing process.[110]

Bullion was desired as a preciosity, for consumption in Europe and even more for trade with Asia, but it was also a necessity for the expansion of the European economy. We must ask ourselves why.

After all, money as a means of payment can be made of anything, provided men will honor it. And indeed today we almost exclusively use nonbullion items as means of payment. Furthermore, Europe was beginning to do so in the late Middle Ages with the development of "money of account," sometimes deceivingly called "imaginary money."

It would however take centuries before metallic money approached the status of symbolic money.[111] It is not yet totally there even today. As a result Europe was beset by constant mutations of value through debasement, so constant that Marc Bloch calls it "the universal thread of monetary history."[112] Yet no one seriously suggested then dispensing with bullion.

There were various reasons why not. Those who advised the governments were self-interested in the system.[113] We must not forget that in the late Middle Ages, it was still the case that mints were commercial propositions serving private interests.[114] But more fundamental than self-interest was the collective psychology of fear, based on the structural reality of a weakly-articulated economic system. The money of account might always collapse. It surely was in no man's hands, however wealthy, to control it either singly or in collusion with others. Indeed, who knew, the whole monetary economy might once again collapse? It had before. Bullion was a hedge. The money of payment might always be used as a commodity, provided only the two uses of money, as measurement of value and means of payment, did not get too far apart.[115] For this, the use of bullion was essential. And hence without it, Europe would have lacked the collective confidence to develop a capitalist system, wherein profit is based on various deferrals of realized value. This is *a fortiori* true given the system of a nonimperial world-economy which, for other reasons, was essential. Given this phenomenon of collective psychology, an integral element of the social structure of the time, bullion must be seen as an essential crop for a prospering world-economy.

The motives for exploration were to be found not only in the products Europe wished to obtain but in the job requirements of various groups in Europe. As H. V. Livermore reminds us, it was the Iberian chroniclers of the time and shortly thereafter who first noted that "the idea of carrying on the *Reconquista* in North Africa was suggested by the need to find useful employment for those who had lived on frontier raids for almost a quarter of a century."[116]

We must recall the key problem of the decline in seigniorial income in the fourteenth and fifteenth centuries. M. M. Postan has called the consequent behavior of the English nobility "gangsterism," the use of illegal violence to recover a lost standard of income. Similar phenomena occurred in Sweden, Denmark, and Germany. One of the forms of this violence was surely expansion.[117] The general principle that might be invoked is that if feudal nobles obtain less revenue from their land, they will actively seek to have more land from which to draw revenue, thus restoring real income to the level of social expectations. If then we ask why did Portugal expand overseas and not other European countries, one simple answer is that

nobles in other countries were luckier. They had easier expansions to undertake, closer at home, using horses rather than ships. Portugal, because of its geography, had no choice.

No doubt overseas expansion has been traditionally linked with the interests of merchants, who stood to profit by the expanded trade, and with the monarchs who sought to ensure both glory and revenue for the throne. But it may well have been that the *initial* motivation for Iberian explorations came primarily from the interests of the nobility, particularly from the notorious "younger sons" who lacked land, and that it was only once the trade network began functioning that the more prudent merchants (often less entrepreneurial than nobles threatened by being déclassé) became enthusiastic.[118]

Was the cause of expansion overpopulation? This is one of those questions which confuse the issue. Braudel tells us that there was of course overpopulation in the western Mediterranean, and as proof he cites the repeated expulsion of Jews and later the Moriscos from various countries.[119] But E. E. Rich assures us that, as a motivation for expansion in the fifteenth and sixteenth centuries, "overspill for redundant population was negligible. . . . The probability (for it can be no more) is that the increasing population went to the wars or to the cities."[120] Yes, perhaps, but how were those who went to the cities (or to the wars) fed—and clothed and housed, etc.? There was physical room for the population, even the growing population, in Europe. Indeed that was part of the very problem that led to expansion. The physical room was one element in the strength of the peasantry vis-à-vis the nobility, and hence one factor in the decline of seigniorial revenues, in the crisis of feudalism. European societies could have responded in various ways. One way was to define themselves (at least implicitly) as overpopulated and therefore in need of a larger land base.[121] Actually, what the nobility (and the bourgeoisie) needed, and what they would get, was a more tractable labor force. The size of the population was not the issue; it was the social relations that governed the interaction between upper and lower classes.

Finally, can overseas expansion be explained by the "crusading spirit," the need to evangelize? Again, the question obscures the problem. No doubt Christianity took on a particularly militant form in the Iberian peninsula where the national struggles had for so long been defined in religious terms. No doubt this was an era of Christian *defeat* by Moslem Turks in south-eastern Europe (to the very gates of Vienna). And Atlantic expansion may well have reflected a psychological reaction to these events, "a phenomenon of compensation, a sort of flight forward," as Chaunu suggests.[122] No doubt the passions of Christianity explain many of the particular decisions taken by the Portuguese and Spaniards, perhaps some of the intensity of commitment or overcommitment. But it seems more plausible to see this religious enthusiasm as rationalization, one no doubt internalized by many of the actors, hence reinforcing and sustaining—and economically distorting. But history has seen passion turn to cynicism too regularly for one not to be suspicious of invoking

such belief systems as primary factors in explaining the genesis and long-term persistence of large-scale social action.

All that we have said of motivation does not conclusively answer: why the Portuguese? We have talked of *Europe's* material needs, a *general* crisis in seigniorial revenues. To be sure, we here adduced a particular interest of Portugal in solving this problem by Atlantic exploration; but it is not enough to be convincing. We must therefore turn from the issue of motivations to that of capabilities. Why was Portugal, of all the polities of Europe, most able to conduct the initial thrust? One obvious answer is found on any map. Portugal is located on the Atlantic, right next to Africa. In terms of the colonization of Atlantic islands and the exploration of the western coast of Africa, it was obviously closest. Furthermore, the oceanic currents are such that it was easiest, especially given the technology of the time, to set forth from Portuguese ports (as well as those of southwest Spain).[123]

In addition, Portugal already had much experience with long-distance trade. Here, if Portugal cannot match the Venetians or the Genoese, recent research has demonstrated that their background was significant and probably the match of the cities of northern Europe.[124]

A third factor was the availability of capital. The Genoese, the great rivals of the Venetians, decided early on to invest in Iberian commercial enterprise and to encourage their efforts at overseas expansion.[125] By the end of the fifteenth century, the Genoese would prefer the Spaniards to the Portuguese, but that is largely because the latter could by then afford to divest themselves of Genoese sponsorship, tutelage, and cut in the profit. Verlinden calls Italy "the only really colonizing nation during the middle ages."[126] In the twelfth century when Genoese and Pisans first appear in Catalonia,[127] in the thirteenth century when they first reach Portugal,[128] this is part of the efforts of the Italians to draw the Iberian peoples into the international trade of the time. But once there, the Italians would proceed to play an initiating role in Iberian colonization efforts because, by having come so early, "they were able to conquer the key positions of the Iberian peninsula itself."[129] As of 1317, according to Virginia Rau, "the city and the port of Lisbon would be the great centre of Genoese trade. . . ."[130] To be sure, in the late fourteenth and early fifteenth centuries, Portuguese merchants began to complain about the "undue intervention [of the Italians] in the *retail* trade of the realm, which threatened the dominant position of national merchants in that branch of trade."[131] The solution was simple, and to some extent classic. The Italians were absorbed by marriage and became landed aristocrats both in Portugal and on Madeira.

There was one other aspect of the commercial economy that contributed to Portugal's venturesomeness, compared to say France or England. It was ironically that it was least absorbed in the zone that would become the European world-economy, but rather tied in a significant degree to the Islamic Mediterranean zone. As a consequence, her economy was relatively more monetized, her population relatively more urbanized.[132]

It was not geography nor mercantile strength alone, however, that accounted for Portugal's edge. It was also the strength of its state machinery. Portugal was in this regard very different from other west European states, different that is during the fifteenth century. She knew peace when they knew internal warfare.[133] The stability of the state was important not only because it created the climate in which entrepreneurs could flourish and because it encouraged nobility to find outlets for their energies other than internal or inter-European warfare. The stability of the state was crucial also because it itself was in many ways the chief entrepreneur.[134] When the state was stable, it could devote its energies to profitable commercial ventures. For Portugal, as we have seen, the logic of its geohistory dictated Atlantic expansion as the most sensible commercial venture for the state.

Why Portugal? Because she alone of the European states maximized will and possibility. Europe needed a larger land base to support the expansion of its economy, one which could compensate for the critical decline in seigniorial revenues and which could cut short the nascent and potentially very violent class war which the crisis of feudalism implied. Europe needed many things: bullion, staples, proteins, means of preserving protein, foods, wood, materials to process textiles. And it needed a more tractable labor force.

But "Europe" must not be reified. There was no central agency which acted in terms of these long-range objectives. The real decisions were taken by groups of men acting in terms of their immediate interests. In the case of Portugal, there seemed to be advantage in the "discovery business" for many groups—for the state, for the nobility, for the commercial bourgeoisie (indigenous and foreign), even for the semiproletariat of the towns.

For the state, a *small* state, the advantage was obvious. Expansion was the most likely route to the expansion of revenue and the accumulation of glory. And the Portuguese state, almost alone among the states of Europe of the time, was not distracted by internal conflict. It had achieved moderate political stability at least a century earlier than Spain, France, and England.

It was precisely this stability which created the impulse for the nobility. Faced with the same financial squeeze as European nobles elsewhere, they were deprived of the soporific and financial potential (if they won) of internecine warfare. Nor could they hope to recoup their financial position by internal colonization. Portugal lacked the land. So they were sympathetic to the concept of oceanic expansion and they offered their "younger sons" to provide the necessary leadership for the expeditions.

The interests of the bourgeoisie for once did not conflict with those of the nobility. Prepared for modern capitalism by a long apprenticeship in long-distance trading and by the experience of living in one of the most highly monetized areas of Europe (because of the economic involvement with the Islamic Mediterranean world), the bourgeoisie too sought to escape the confines of the small Portuguese market. To the extent that they lacked the capital, they found it readily available from the Genoese who, for reasons of their

own having to do with their rivalry with Venice, were ready to finance the Portuguese. And the potential conflict of the indigenous and foreign bourgeoisie was muted by the willingness of the Genoese to assimilate into Portuguese culture over time.

Finally, exploration and the consequent trade currents provided job outlets for the urban semiproletariat many of whom had fled to the towns because of the increased exploitation consequent upon the seigniorial crisis. Once again, a potential for internal disorder was minimized by the external expansion.

And if these conjunctures of will and possibility were not enough, Portugal was blessed by the best possible geographic location for the enterprise, best possible both because of its jutting out into the Atlantic and toward the south but also because of the convergence of favorable oceanic currents. It does not seem surprising thus, in retrospect, that Portugal made the plunge.

There is one last issue we must confront before we can proceed with the main part of the book. Thus far we have been concerned with explaining what it was that led Europe to the brink of creating a capitalist world-economy. Since our emphasis will be on how capitalism is only feasible within the framework of a world-economy and not within that of a world-empire, we must explore briefly why this should be so. The apt comparison is of Europe and China, which had approximately the same total population from the thirteenth to sixteenth centuries.[135] As Pierre Chaunu elegantly states:

> That Christopher Columbus and Vasco da Gama . . . weren't Chinese, . . . is something which is worth . . . some moments of reflection. After all, at the end of the 15th century, insofar as the historical literature permits us to understand it, the Far-East as an entity comparable to the Mediterranean . . . is in no way inferior, superficially at least, to the far-west of the Eurasian continent.[136]

In no way inferior? This requires the traditional comparison of technologies, and here the scholars are divided. For Lynn White, Jr., Europe expanded in the sixteenth century because Europe outstripped the rest of the world in the technology of agriculture as early as the ninth century A.D.:

> Between the first half of the 6th century and the end of the 9th century Northern Europe created or received a series of inventions which quickly coalesced into an entirely novel system of agriculture. In terms of a peasant's labor, this was by far the most productive the world has seen. [White is referring to the heavy plough, the three-field rotation system, open fields for cattle, the modern harness and horseshoe]. . . . As the various elements in this new system were perfected and diffused, more food became available, and population rose. . . . And the new productivity of each northern peasant enabled more of them to leave the land for the cities, industry and commerce.[137]

White also argues that northern Europe pulled ahead in military technology in the eighth century and in industrial production in the

eleventh. If one asks why this should be so, White attributes this to the profound upheaval of the barbarian invasions, to which the West presumably had a Toynbeean creative reaction.[138]

Other scholars however disagree on the factual assessment. Take military technology. Carlo Cipolla argues:

> It is likely that Chinese guns were at least as good as Western guns, if not better, up to the beginning of the 15th century. However, in the course of the 15th century, European technology made noticeable progress. . . . European artillery was incomparably more powerful than any kind of cannon ever made in Asia, and it is not difficult to find, in [16th century] texts echoes of the mixture of terror and surprise that arose at the appearance of European ordnance.[139]

Similarly, Joseph Needham, who is still in the midst of his monumental account of the history of Chinese science and technology, dates the moment of European technological and industrial advantage over China only at 1450 A.D.[140] What accounts for the European surge forward? Not one thing, says Needham, but "an organic whole, a packet of change."

> The fact is that in the spontaneous autochthonous development of Chinese society no drastic change parallel to the Renaissance and the "scientific revolution" of the West occurred at all. I often like to sketch the Chinese evolution as represented by a relatively slowly rising curve, noticeably running at a *much higher level than Europe* between, say, the 2nd and 15th centuries A.D. But then after the scientific renaissance had begun in the West with the Galilean revolution, with what one might call the discovery of the basic technique of scientific discovery itself, then the curve of science and technology in Europe begins to rise in a violent, almost exponential manner, overtaking the level of the Asian societies. . . . This violent disturbance is now beginning to right itself.[141]

Some scholars insist on the crucial role of the development of the rudder in Europe in the fifteenth century.[142] But Needham argues the existence of a rudder in China since ± first century A.D., an invention probably diffused from China to Europe in the twelfth century A.D.[143]

If Needham's account of Chinese technological competence and superiority over the West until the latter's sudden surge forward is correct, then it is even more striking that Chinese and Portuguese overseas exploration began virtually simultaneously, but that after a mere 28 years the Chinese pulled back into a continental shell and ceased all further attempts. Not for lack of success, either. The seven voyages of the eunuch-admiral Cheng Ho between 1405 and 1433 were a great success. He traveled the breadth of the Indian Ocean from Java to Ceylon to East Africa in his seven voyages, bringing back tribute and exotica to the Chinese court, which was highly appreciative. The voyages ceased when Cheng Ho died in 1434.

Furthermore, when, in 1479, Wang Chin, also a eunuch, interested in launching a military expedition to Annam, applied to the archives to consult Cheng Ho's papers on Annam, he was refused access. The papers were suppressed, as if to blot out the very memory of Cheng Ho.[144]

The origins of the expeditions and the causes of their cession are equally unclear. It seems to be the case that they were constantly opposed by the official bureaucracy of Confucian mandarins.[145] The question is why. They seem, on the contrary, to have been supported by the Emperor. How else could they have been launched? Further evidence is found by T'ien-Tsê Chang in the fact that, at the beginning of the fifteenth century, the function of the Bureau of Trading Junks, a state institution since the eighth century A.D., was shifted from that of collecting customs (which now became a provincial function) to that of transmitting tribute, which was to be sure of considerable importance in the era of Cheng Ho. Chang asks of the decentralization of customs collections, which presumably permitted lowered barriers in some regions: "[Did not the Emperor] have an eye to encouraging foreign trade the importance of which to China was only too evident?"[146]

Only too evident, yet soon encouragement ceased. Why? For William Willetts, this has something to do with the *Weltanschauung* of the Chinese. They lacked, it is argued, a sort of colonizing mission precisely because, in their arrogance, they were already the whole of the world.[147] In addition, Willetts sees two more immediate explanations for the cessation of exploration: the "pathological hatred felt by Confucian officialdom toward the eunuchs"[148] and the "drain on Treasury funds occasioned by the fitting-out of overseas missions."[149] The latter seems a strange reason, since the drain would presumably have been compensated by the income colonial enterprises might have generated. At least so it seemed to European treasuries of the same epoch.

There are other explanations which argue in terms of alternative foci of political attention diverting the initial interest in Indian Ocean exploration. For example G. F. Hudson argues that the removal northward of the capital, from Nanking to Peking in 1421, which was the consequence of the growing menace of the Mongol nomad barbarians, may have diverted imperial attention.[150] Boxer sees the distraction as having been the menace from the east in the *Wako* or Japanese piratical marauding bands that preyed on the coast of China.[151] M. A. P. Meilink-Roelofsz suggests that the pull of withdrawal may have been abetted by the push of expulsion by Moslem traders in the Indian Ocean.[152]

Even if all these things are true, it does not seem enough. Why was there not the internal motivation that would have treated these external difficulties as setbacks rather than as definitive obstacles? Was it, as some writers have suggested, that China simply did not want to expand?[153] Pierre Chaunu gives us a clue when he suggests that one of the things that was lacking to China was a lack of "groups with convergent wills" to expand.[154] This is more telling, since we remember that in Portugal what is striking is the parallel interests in

overseas exploration and expansion shown by *varied* social groups. Let us review therefore the ways in which the European and Chinese world differed.

There is first a significant difference in agronomy. We discussed the emphasis on meat consumption in Europe, an emphasis which increased with the "crisis" of the fourteenth century. And while meat consumption for the mass of the population would later decline from the sixteenth to the nineteenth century, this did not necessarily mean a decline in the use of land for cattle rather than for grain. The absolute size of the upper classes going up from the sixteenth century on in Europe because of the dramatic rise in population, the same land area might have been used for meat. This would not be inconsistent with a relative decline in meat consumption by the lower classes, who would obtain their grains by import from peripheral areas as well as by more intensive cultivation in western Europe as the result of technological advance.

China by contrast was seeking a stronger agricultural base by developing rice production in the southeastern parts of the country. The emphasis on cattle in Europe led to the extensive use of animal muscular power as an engine of production. Rice is far more fruitful in calories per acre but far more demanding of manpower.

Thus, Chaunu notes, European use of animal power means that "European man possessed in the 15th century a motor, more or less five times as powerful as that possessed by Chinese man, the next most favored in the world at the time of the discoveries."[155]

But even more important than this technological advance for our problem is the implication of this different relationship of man to the land. As Chaunu puts it:

> The European wastes space. Even at the demographic lowpoint of the beginning of the 15th century, Europe lacked space. . . . But if Europe lacks space, China lacks men. . . .
>
> The Western "take-off" occurs seemingly at the same date (11th-13th centuries) as the Chinese 'take-off of rice-production, hut it is infinitely more revolutionary, to the extent that it condemns the great Mediterranean area to the conquest of the Earth. . . .
>
> In every way, the Chinese failure of the 15th century results less from a relative paucity of means than of motivations. The principal motivation remains the need, often subconscious, for space.[156]

Here at least we have a plausible explanation of why China might not want to expand overseas. China had in fact been expanding, but internally, extending its rice production within its frontiers. Europe's "internal Americas" in the fifteenth century were quickly exhausted, given an agronomy that depended on more space. Neither men nor societies engage in difficult tasks gratuitously. Exploration and colonization are difficult tasks.

One last consideration might be that, for some reason, the fifteenth century marked for China what Van der Sprenkel calls a "counter-colonization," a shift of population out of the rice-producing areas.[157]

While this may have relieved the "over-population," a term always relative to social definition, it may have weakened China's industrializing potential without the compensating advantages of a colonial empire. The "take-off" may have thus collapsed.

There is a second great difference between Europe and China. China is a vast empire, as is the Turco-Moslem world at this time. Europe is not. It is a nascent world-economy, composed of small empires, nation-states, and city-states. There are many ways in which this difference was important.

Let us start with the arguments that Weber makes about the implications of the two forms of disintegration of an empire: feudalization, as in western Europe, and prebendalization, as in China.[158] He argues that a newly centralized state is more likely to emerge from a feudal than from a prebendal system. Weber's case is as follows:

> The occidental seigneurie, like the oriental Indian, developed through the disintegration of the central authority of the patrimonial state power—the disintegration of the Carolingian Empire in the Occident, the disintegration of the Caliphs and the Maharadja or Great Moguls in India. In the Carolingian Empire, however, the new stratum developed on the basis of a rural subsistence economy. [Hence, it was presumably at a *lower* level of economic development than its oriental counterparts.] Through oath-bound vassalage, patterned after the war following, the stratum of lords was joined to the king and interposed itself between the freemen and the king. Feudal relations were also to be found in India, but they were not decisive for the formation either of a nobility or landlordism.
>
> In India, as in the Orient generally, a characteristic seigniory developed rather out of tax farming [presumably because the central power was still *strong* enough to insist on taxes and the economy *developed* enough and with enough money-circulation to furnish the basic surplus for taxation; as compared with the presumably less developed Occident of the early Middle Ages] and the military and tax prebends of a far more bureaucratic state. The oriental seigniory therefore remained in essence, a "prebend" and did not become a 'fief'; not feudalization, but prebendalization of the patrimonial state occurred. The comparable, though undeveloped, occidental parallel is not the medieval fief but the purchase of offices and prebends during the papal seicento or during the days of the French Noblesse de Robe . . . . [Also] a purely military factor is important for the explanation of the different development of East and West. In Europe the horseman was technically a paramount force of feudalism. In India, in spite of their numbers, horsemen were relatively less important and efficient than the foot soldiers who held a primary role in the armies from Alexander to the Moguls.[159]

The logic of Weber's argument runs something like this: A technical factor (the importance of horsemen) leads to the strength of

the intermediate warriors vis-à-vis the center during the process of disintegration of an empire. Hence the new social form that emerges is feudalism rather than a prebendal state, in which the center is relatively stronger than in a feudal system. Also, the economy of a feudal system is less developed than that of a prebendal system. (But is this cause or consequence? Weber is not clear.) In the short run, feudalization is obviously better from the standpoint of landlords, since it gives them more power (and more income?). In the long run, however, a prebendal land-controlling class can better resist the growth of a truly centralized monarchy than a feudal landowning class, because the feudal value system can be used by the king, insofar as he can make himself the apex of a single hierarchical system of feudal relations (it took the Capetians several centuries to accomplish this), to build a system of loyalty to himself which, once constructed, can simply shed the personal element and become loyalty to a nation of which the king is the incarnation. Prebendalism, being a far more truly contractual system than feudalism, cannot be conned by such mystical ties. (In which case, incidentally and in passing, we could see the growing prebendalism of eighteenth century France as regressive, and the French Revolution as an attempt to recoup the regression.)

Joseph Levenson, in a book devoted to the question, why not China?, comes up with an answer not too dissimilar from that of Weber:

> Ideally and logically, feudalism as a sociological "ideal type" is blankly opposed to capitalism. But historically and chronologically it gave it stimulation. The very absence of feudal restraints in China put a greater obstacle in the way of the expansion of capitalism (and capitalistic world expansion) than their presence in Europe. For the non-feudal bureaucratic society of China, a self-charging, persisting society, just insofar as it was ideally more congenial than feudal society to elementary capitalist forms, accommodated and blanketed the embryonic capitalism, and ruined its revolutionary potential. Is it any wonder, then, that even in Portugal, one of the least of the capitalist powers in the end, a social process quite the reverse of China's should release the force of expansion instead of contracting it? It was a process in Portugal and Western Europe generally, of a protocapitalist extrication from feudalism and erosion of feudalism. And this was a process quite different from the persistence in China of a non-feudal, bureaucratic society, a depressant of feudalism—and of capitalism, too.[160]

Here we have an argument we shall encounter frequently: Initial receptivity of a system to new forms does not lead to gradual continuous change but rather to the stifling of the change, whereas initial resistance often leads later on to a breakthrough.

Feudalization brought with it the dismantling of the imperial structure, whereas prebendalization maintained it. Power and income was distributed in the one case to ever more autonomous landlords, rooted in an area, linked to a given peasantry, and in the other to an

empire-wide stratum, deliberately not linked to the local area, semi-universalistic in recruitment but hence dependent upon the favor of the center. To strengthen the center of an empire was a colossal job, one only begun in the twentieth century under the Chinese Communist Party. To create centralized units in smaller areas was impossible as long as the center maintained any coherence, which it did under the Ming and then the successor Manchu dynasty; whereas creating centralized units in a feudal system was, as we know, feasible if difficult. Weber outlined the reasons quite clearly:

> A general result of oriental patrimonialism with its pecuniary prebends was that, typically, only military conquest or religious revolutions could shatter the firm structure of prebendary interests, thus creating new power distributions and in turn new economic conditions. Any attempt at internal innovation, however, was wrecked by the aforementioned obstacles. Modern Europe, as noted, is a great historical exception to this because, above all, pacification of a unified empire was lacking. We may recall that, in the Warring States, the very stratum of state prebendiaries who blocked administrative rationalization in the world empire were once its most powerful promoters. Then, the stimulus was gone. *Just as competition for markets compelled the rationalization of private enterprise, so competition for political power compelled the rationalization of state economy and economic policy* both in the Occident and in the China of the Warring States. In the private economy, cartellization weakens ration?' calculation which is the soul of capitalism; among states, power monopoly prostrates rational management in administration, finance, and economic policy. . . . In addition to the aforementioned difference in the Occident, there were strong and independent forces. With these princely power could ally itself in order to shatter traditional fetters; or, under very special conditions, these forces could use their own military power to throw off the bonds of patrimonial power.[161]

There is another factor to consider in envisaging the relationship of the regional center or the forward point of a system with the periphery in a world-economy versus an empire. An empire is responsible for administering and defending a huge land and population mass. This drains attention, energy, and profits which could be invested in capital development. Take for example the issue of the Japanese *Wako* and their presumed impact on Chinese expansion. In principle, the *Wako* were less of a problem to China than the Turks to Europe. But when the Turks advanced in the east, there was no European emperor to recall the Portuguese expeditions. Portugal was not diverted from its overseas adventures to defend Vienna, because Portugal had no political obligation to do so, and there was no machinery by which it could be induced to do so, nor any Europe-wide social group in whose interests such diversion would be.

Nor would expansion have seemed as immediately beneficial to a

European emperor as it did to a Portuguese king. We discussed how the Chinese emperor may have seen, and the Chinese bureaucracy did see, Cheng Ho's expeditions as a drain on the treasury, whereas the need for increasing the finances of the state was one of the very motives of European expansion. An empire cannot be conceived of as an entrepreneur as can a state in a world-economy. For an empire pretends to be the whole. It cannot enrich its economy by draining from other economies, since it is the only economy. (This was surely the Chinese ideology and was probably their belief.) One can of course increase the share of the Emperor in the distribution of the economy. But this means the state seeks not entrepreneurial profits but increased tribute. And the very form of tribute may become economically self-defeating, as soon as political strength of the center wanes, because under such circumstances, the payment of "tribute" may be a disguised form of trade disadvantageous to the empire.[162]

There is a link too between military technology and the presence of an imperial framework. Carlo Cipolla raises the question as to why the Chinese did not adopt the military technological advantages they saw the Portuguese had. He suggests the following explanation: "Fearing internal bandits no less than foreign enemies and internal uprisings no less than foreign invasion, the Imperial Court did its best to limit both the spread of the knowledge of gunnery and the proliferation of artisans versed in the art."[163] In Europe with its multiplicity of sovereignties, there was no hope of limiting the spread of arms. In China, apparently, it was still possible, and hence the centralized system backed off a technological advance essential in the long run for the maintenance of its power. Once again, the imperial form may have served as a structural constraint, this time on technological development.

One last puzzle remains. There emerged in China at this time an ideology of individualism, that of the Wang Yang-ming school, which William T. Du Bary sees as comparable to humanist doctrines in the West, and which he calls a "near-revolution in thought," that however failed "to develop fully."[164] Did not individualism as an ideology signal the strength of an emergent bourgeoisie, and sustain it against traditionalist forces?

Quite the contrary, it seems, according to Roland Mousnier. His analysis of the social conflicts of Ming China argues that individualism was the weapon of the Confucian mandarins, the bureaucratic class which was so "modern" in outlook, against the eunuchs, who were "entrepreneurial" and "feudal" at the same time, and who represented the "nationalist" thrust of Ming China.[165] Mousnier argues as follows:

> To advance their career [in Ming China], a large part of the educated classes of middle-class origin voluntarily became castrates. Because of their education, they were able to play a preponderant role and the Empire was in reality ruled by these eunuchs.
>
> Once having obtained high posts, they aided their families, created for themselves a clientele by distributing offices and fiefs, became veritable powers within the Empire itself. The large role played by eunuchs seems to be therefore a function of

> the rise of the bourgeoisie. The princes of the blood and the men of importance [*les grands*] sought to defend themselves by creating a clientele also made up of educated men of middle-class origin whom they pushed forward in the civil service. . . . [This latter group] were sometimes disciples of Wang Yang-ming and invoked his precepts to oppose the eunuchs who were established in power. The eunuchs were for Chu Hi, defender of tradition and authority [to which the eunuchs had, at this point, primary access]. These struggles were all the more serious since princes of the blood, men of importance, and eunuchs all had a power base as land-controllers [*maîtres du sol*]. The Mings had sought to reinforce their position by creating a sort of feudalism of relatives and supporters. . . . The victim of this state of affairs was the peasant. The expenses of the State grew ceaselessly.[166]

So, of course, did they in Europe, but in Europe, these expenses supported a nascent bourgeoisie and an aristocracy that sought ultimately, as we shall see, to save itself by becoming bourgeois, as the bourgeois were becoming aristocratic. In Ming China, the ideology that served the western bourgeoisie to achieve its ultimate conquest of power was directed against this very bourgeoisie who (having achieved some power too early?) were cast in the role of defenders of tradition and authority. There is much that remains to be elucidated here, but it casts doubt on the too simple correlation of the ideology of individualism and the rise of capitalism. It surely casts doubt on any causal statement that would make the emergence of such an ideology primary.

The argument on China comes down to the following. It is doubtful that there was any significant difference between Europe and China in the fifteenth century on certain base points: population, area, state of technology (both in agriculture and in naval engineering). To the extent that there were differences it would be hard to use them to account for the magnitude of the difference of development in the coming centuries. Furthermore the difference in value systems seems both grossly exaggerated and, to the extent it existed, once again not to account for the different consequences. For, as we tried to illustrate, idea systems are capable of being used in the service of contrary interests, capable of being associated with quite different structural thrusts. The tenants of the primacy of values, in their eagerness to refute materialist arguments, seem guilty themselves of assuming a far more literal correspondence of ideology and social structure (though they invert the causal order) than classical Marxism ever was.

The essential difference between China and Europe reflects once again the conjuncture of a secular trend with a more immediate economic cycle. The long-term secular trend goes back to the ancient empires of Rome and China, the ways in which and the degree to which they disintegrated. While the Roman framework remained a thin memory whose medieval reality was mediated largely by a common church, the Chinese managed to retain an imperial political structure, albeit a weakened one. This was the difference

between a feudal system and a world-empire based on a prebendal bureaucracy. China could maintain a more advanced economy in many ways than Europe as a result of this. And quite possibly the degree of exploitation of the peasantry over a thousand years was less.

To this given, we must add the more recent agronomic thrusts of each, of Europe toward cattle and wheat, and of China toward rice. The latter requiring less space but more men, the secular pinch hit the two systems in different ways. Europe needed to expand geographically more than did China. And to the extent that some groups in China might have found expansion rewarding, they were restrained by the fact that crucial decisions were centralized in an imperial framework that had to concern itself first and foremost with short-run maintenance of the political equilibrium of its world-system.

So China, if anything seemingly better placed prima facie to move forward to capitalism in terms of already having an extensive state bureaucracy, being further advanced in terms of the monetization of the economy and possibly of technology as well, was nonetheless less well placed after all. It was burdened by an imperial political structure. It was burdened by the "rationality" of its value system which denied the state the leverage for change (had it wished to use it) that European monarchs found in the mysticality of European feudal loyalties.

We are now ready to proceed with our argument. As of 1450, the stage was set in Europe but not elsewhere for the creation of a capitalist world-economy. This system was based on two key institutions, a "world"-wide division of labor and bureaucratic state machineries in certain areas. We shall treat each successively and globally. Then we shall look at the three zones of the world-economy each in turn: what we shall call the semiperiphery, the core, and the periphery. We treat them in this order largely for reasons of historical sequence which will become clear in the exposition of the argument. It will then be possible to review the totality of the argument at a more abstract level. We choose to do this at the end rather than at the beginning not only in the belief that the case will be more convincing once the empirical material has been presented but also in the conviction that the final formulation of theory should result from the encounter with empirical reality, provided that the encounter has been informed by a basic perspective that makes it possible to perceive this reality.

[1]S. N. Eisenstadt, "Empires," *International Encyclopedia of the Social Sciences*, (New York: Macmillan and Free Press, 1968), **V**, 41.

[2]A discussion of the internal contradictions of empires which account for their decline is to be found in S. N. Eisenstadt, "The Causes of Disintegration and Fall of Empires: Sociological and Historical Analyses," *Diogenes*, No. 34, Summer 1961, 82–107.

[3]And it was a mark of political wisdom to realize this. The first such sign of wisdom was the refusal of Venice in the thirteenth

century to take over the political burdens of the Byzantine Empire. Mario Abrate observes:

"The political organism which emerged from the fourth Crusade, the Eastern Latin Empire, placed its entire hope of survival on the continuity of its links with the West.

"Venice, the naval power which had supported the Crusade, and furnished the naval means to conduct it, did not wish to burden itself with the political governance of the Empire (Doge Enrico Dandolo refused in fact the throne that was offered to him) but assured itself, and that almost automatically, of the monopoly of naval communications and markets for all the territories controlled by the new Latin Dominion." "Creta, colonia veneziana nei secoli **XIII–XV**," *Economia e storia*, **IV**, 3, lugl.-sett. 1957, 251.

[4] Frederic C. Lane, "The Economic Meaning of War & Protection" in *Venice and History* (Baltimore: Johns Hopkins Press, 1966), 389.

[5] Ferdinand Fried, *Le tournant de l'économie mondiale* (1942), cited in Fernand Braudel, *La Méditerranée et le monde mediterranéen à l'époque de Philippe II*, 2e édition revue et augmentée (Paris: Lib. Armand Colin, 1966), **I**, 339.

[6] See Braudel, *La Méditerranée*, **I**, 339–340. As for Europe in the fifteenth century, Garrett Mattingly argues that it still required smaller-scale units: "At the beginning of the fifteenth century Western society still lacked the resources to organize stable states on the national scale. On the scale of the Italian city state it could do so. Internally the smaller distances to be overcome brought the problems of transport and communication, and consequently the problems of collecting taxes and maintaining the central authority, within the range of practical solution." *Renaissance Diplomacy* (London: Jonathan Cape, 1955), 59.

But, says Mattingly, this changes by the following century: "[I]n terms of commercial intercourse, or military logistics, or even of diplomatic communication, European distances were perceptibly greater in the fourteenth than in the sixteenth century. . . ." [*Ibid.*, p. 60].

[7] "When one says 'world', with reference to the 16th century . . . in fact, usually one means Europe by the world. . . . On a world scale, geographically speaking, the Renaissance economy is a regional aspect, no doubt primordial, but nonetheless regional." Michel Mollat, "Y a-t-il une économie de la Renaissance?", in *Actes du Colloque sur la Renaissance* (Paris: Lib. Philosophique J. Vrin, 1958), 40.

[8] "Before the constitution of a truly world economy (still uncompleted in the twentieth century), each nucleus of population is found in the center of a communications network. . . . Each of these worlds corresponds . . . to a nucleus with a high population density. It is bounded by deserts, by seas, by virgin lands. The case of Europe and that of China are particularly clear." Pierre Chaunu, *L'expansion européenee du XIIIe au XVe siècle*, Collection Nouvelle Clio, No. 26 (Paris: Presses Universitaires de France, 1969), 255.

[9] Marc Bloch attacked the basic confusion head on: "Clearly from the fact that a transaction stipulates a price in monetary equivalents or in kind, one cannot legitimately deduce, without more precise evidence, that the payment was really made or not in cash. . . .

Just as the political institutions of feudalism, characterized by a profound weakening of the State, presumed nonetheless the memory and bore the traces of a past when the State had been strong, so the economy, even when exchange had become minimal, never ended its attachment to a monetary schema, whose principles were inherited from preceding civilizations." "Economie-nature ou économie-argent: un pseudo-dilemme," *Annales d'histoire sociale*, **I**, 1939, 13–14. Bloch further states: "European feudalism should therefore be seen as the outcome of the violent dissolution of older societies. It would in fact be unintelligible without the great upheaval of the Germanic invasions which, by forcibly uniting two societies originally at very different stages of development, disrupted both of them. . . ." *Feudal Society* (Chicago, Illinois: Univ. of Chicago Press, 1961), 443.

On the issue of the "money-economy," see also M. M. Postan: "Thus from the point of view of English history, and even from that of medieval and Anglo-Saxon history, the rise of the money economy in the sense of its first appearance has no historical meaning. Money was in use when documented history began, and its rise cannot be adduced as an explanation of any later phenomenon." "The Rise of a Money Economy," *Economic History Review*, **XIV**, 2, 1944, 127.

[10] Daniel Thorner, "L'économie paysan: concept pour l'histoire économique," *Annales E.S.C.*, **XIX**, 3, mai-juin 1964, 422.

[11] B. H. Slicher van Bath, *The Agrarian History of Western Europe, A.D. 500–1850* (New York: St. Martin's, 1963), 24. The author notes that about 1850, a second phase of indirect agricultural production begins, one in which the *majority* of the population is no longer engaged in agricultural production.

[12] Karl Bücher warns us of the confusion that the world "merchant" causes in the medieval context: "Recent literature relating to the origin of the constitution of German towns has overlooked the very wide significance of the word *Kaufmann* and imagined that the innumerable towns existing within the German Empire towards the close of the Middle Ages, from Cologne and Augsburg down to Medebach and Radolfzell, were inhabited by merchants in the modern sense of the term, that is, by a specialized class of professional tradesmen who are as a rule still represented as wholesale merchants. All economic history revolts against such a conception. What did these people deal in, and in what did they make payment for their wares? Besides, the very terms used are opposed to it. The most prominent characteristic of the professional merchant in his relation to the public is not his custom of buying, but of selling. Yet the chapman (Kaufmann) of the Middle Ages is named from the word for buying—*kaufen*. In the State records of Otto III, for Dortmund from 990 to 1000 A.D. the *emptores Trotmanniae*, whose municipal laws, like those of Cologne and Mainz, are said to serve as a model for other cities, are spoken of in the same connection as *mercatores* or *negotiatores* in other records. If the abbot of Reichenau in the year 1075 can with a stroke of the pen

transform the peasants of Allensbach and their descendants into merchants *(ut ipsi et eorum posteri sint mercatores)*, no possible ingenuity of interpretation can explain this if we have in mind professional tradesmen. That in point of fact merchant meant any man who sold wares in the market, no matter whether he himself had produced them or bought the greater part of them, is evident, for example, from an unprinted declaration of the Council of Frankfurt in 1420 regarding the toll called *Marktrecht* (in Book No. 3 of the Municipal Archives, Fol. 80). There we find at the beginning that this toll is to be paid by 'every merchant who stands on the street with his merchandise, whatsoever it be.' Then follow, specified in detail, the individual 'merchants' or the 'merchandise' affected by this toll. From the lengthy list the following instances may be given: dealers in old clothes, pastry-books, food-vendors, rope-makers, hazelnut-sellers, egg and cheese-sellers with their carts, poultry-vendors who carry about their baskets on their backs, strangers having in their possession more than a matter of cheese, cobblers, money changers, bakers who use the market-stalls, strangers with breadcarts, geese, wagons of witch (fodder), straw, hay, cabbages, all vendors of linen, flax, hemp, yarn, who sell their wares upon the street. Here we have a confused medley of small tradesmen of the town, artisans and peasants. That buyers as well as sellers on the market were designated as *Kaufleute* (merchants) is evident from numerous records; in fact, passages might be cited in which, when the merchant is spoken of, it is the buyer that seems to be chiefly meant." *Industrial Evolution* (New York: Holt, 1901), 117–118, fn. 23.

[13] There was "long distance" trade and very local trade, but no "intermediate" trade. Carlo Cipolla gives this explanation: "A curious mixture of universalism and particularism dominated the scene. It was economically convenient to get precious silk from China or precious rugs from the Near East, but it was usually not convenient to get poorer commodities from a few miles away. Since mass transportation was impossible for technical reasons, freight costs remained relatively high. Particularly when transportation by water route was impossible, long distance trade had to rely mainly, if not exclusively, on precious objects. For its basic daily needs any community had always to be as self-sufficient and self-sustaining as possible. The interlocal division of labor had to rest mainly on precious objects or other things that by no means could be made locally or were not susceptible of easy substitution. And trade had to rest heavily on aristocratic consumption of luxury goods." *Money, Prices, and Civilization in the Mediterranean World: Fifth to Seventeenth Century* (New York: Gordian Press, 1967), 57.

[14] See Paul Sweezy: "[T]he rise of the towns, which was fairly general throughout western Europe, did a great deal more than merely offer a haven of refuge to those serfs who fled the manor; it also altered the position of those who remained behind. . . . Just as wages must rise in a low-wage area, so concessions had to be made to serfs when they had the possibility of moving to towns." "The Transition from Feudalism to Capitalism," *Science and Society*, **XIV**, 2, Spring 1950, 145. It might be noted that in the course of this long debate between Sweezy and Maurice Dobb, in which they

disagree about a long list of things, Dobb notes on this point: "Incidentally, I agree entirely with the important consideration which Sweezy stresses that it was not so much the magnitude of the flight to the towns which was significant, but that the threat of it (accompanied perhaps by no more than a small movement) might suffice to force the lords into making concessions, severely weakening to feudalism." "Reply by Maurice Dobb," *Science and Society*, **XIV**, 2, Spr. 1950, 160.

[15] "There is no doubt that forms nearest to feudalism appeared in all their force, both in Byzantium and in the Moslem world, at moments of commercial expansion and not at those of decline. The same thing is undoubtedly true for the Russian and Polish worlds, with the particular feature that the men who materially organized the international trade were by and large foreigners (Hanseatic merchants), while the indigenous landowners took care of producing and assembling the objects of commerce. The profits were divided between the two groups, thus assisting the rise of the seigniorial class by enabling it to acquire the means of dominating the peasants." Claude Cahen, "A propos de la discussion sur la féodalité," *La Pensée*, No. 68, juil.–août 1956, 95–96.

[16] Cahen, *ibid.* p. 96. A. B. Hibbert similarly argues that: "Both fact and theory suggest that in earlier medieval times trade was by no means a solvent of feudal society, but that it was a natural product of that society and that feudal rulers up to a point favored its growth. . . . Feudalism could never dispense with merchants. . . . There were two reasons why. . . . They had to provision large private and public establishments, and they wished to gain profit from trade and industry, either by becoming traders themselves or by tapping the wealth produced by trade and industry through levies and charges upon goods or upon those who produced and distributed them." "The Origins of the Medieval Town Patriciate," *Past & Present*, No. 3, Feb., 1953, 17.

Hibbert further discusses the *two* sources of dominant strata in the towns:

"Two processes are involved in the formation of a patriciate, the internal transformation of an old dominant class and the recruitment of new families from the more successful merchants and artisans, who were often immigrants and descendants of immigrants [p. 23]."

"[This explanation] allows for a source of mercantile capital additional to the windfalls of petty pedlars and porters. Finally it will allow for the idea that the novel techniques or fresh markets might first be exploited by new men who in order to expand relied on association with wealthy men of older standing so that capital was gradually shifted from an older to a new use [p. 26]."

[17] Owen Lattimore, "The Frontier in History", in *Relazioni del X Congresso de Scienze Storiche*, **I:** *Metodologia—Problemi generali—Scienze ausiliare della storia* (Firenze, G. C. Sansoni, 1955), 124–125.

[18] Edouard Perroy, "A l'origine d'une économie contractée: les crises du XIVe siècle," *Annales E.S.C.*, **IV**, 2, avr.-juin 1949, 168. One piece of evidence that Perroy may be right about saturation of population is the fact that English archives indicate that in the Middle

Ages, a working day in agriculture in fact meant "from sunrise to noon." See Slicher van Bath, *Agrarian History*, p. 183. In fact Ester Boserup derives from this fact the conclusion that a significant aspect of modern agricultural development is "a gradual lengthening of working hours in agriculture." *The Conditions of Economic Growth* (Chicago, Illinois: Aldine, 1965), 53.

[19]Perroy, *ibid.*, p. 182.

[20]Douglass C. North & Robert Paul Thomas, "An Economic Theory of the Growth of the Western World," *Economic History Review*, 2nd ser., **XXIII**, 1, Apr. 1970, 12–13. B. H. Slicher van Bath points to a similar pressure towards "stagnation." He says: "Despite the diminution of the cultivated area and a reduction in the factors of production—which must have indicated a great diminution in the total production of cereals—the price of cereals did not rise in proportion to other merchandise. They even showed a slight tendency to go down. Which indicates that consumption regressed further than production." "Les problèmes fondamentaux de la societé pré-industrielle en Europe occidentale," *Afdeling Agrarische Geschiedenis Bijdragen*, No. 12, 1965, 40.

How great the "stagnation" was is itself an issue. Eugen A. Kominsky doubts that the description is valid other than for England and, to some extent, France. See "Peut-on considérer le XIVe et le XVe siècles comme l'époque de la décadence de l'économie européenne?" *Studi in onore di Armando Sapori* (Milano: Istituto Edit. Cisalpino, 1957), **I,** 562–563.

[21]Michael Postan's description is also close to that of Perroy. See M. M. Postan, "Some Economic Evidence of Declining Population in the Later Middle Ages," *Economic History Review*, 2nd ser., **II,** 3, 1950, 221–246.

[22]Marc Bloch supports Hilton's argument when he warns us against exaggerating the extent of decline in seigniorial income which comes from overestimating the role of cash-flow. It is true that to the extent that rents were fixed, a devaluation of silver would in fact mean an increment to the tenant, provided the tenant paid in silver. But these provisos are bothersome. Bloch reminds us that at this time there was "a terrible famine of metallic money (to such an extent that in England, some peasants, unable to procure the silver needed to pay their rents, themselves asked to pay them in kind)." *Seigneurie française et manoir anglais* (Paris: Lib. Armand Colin, 1960), 110. Hence, says Bloch, there resulted a "lower limit [*palier*] of prices advantageous, obviously, for those who earned fixed rents."

[23]R. H. Hilton, "Y eut-il une crise générale de la fëodalité?" *Annales E.S.C.*, **VI**, 1, janv.-mars 1951, 25.

[24]*Ibid.*, p. 27.

[25]*Ibid.*, p. 28.

[26]R. H. Hilton, "Peasant Movements in England Before 1381", in E. M. Carus-Wilson, ed., *Essays in Economic History* (New York: St. Martin's, 1966), **II,** 79. Hilton points out that rent increases, in the case of poor peasants, might cost him his reserve for the winter. For rich peasants, the result was different: "More irritating to them must have been the hindrances to accumulation, rather than the fear

of starvation [p. 86]." Furthermore, legislation designed to hold down costs by freezing wages benefited large landowners more than rich peasants. "Now a large farm is useless without the hands to till it, so the tenant was prepared to pay high prices for the labour he could not get otherwise. In so doing he would also tend to put up the price of labour for the manorial lords. But there was no need for the lords to suffer from the working of economic laws because they had at their disposal the political power which enabled them to circumvent them. They still had reserves of serf labour, and they controlled the distribution of such available wage labour as there was, in their capacity as Justices of Labourers, or of the Peace [p. 88]."

[27]Eugen A. Kosminsky, "The Evolution of Feudal Rent in England from the XIth to the XVth Centuries," *Past & Present*, No. 7, April 1955, 32. He continues: "The growth of feudal exploitation began to exhaust peasant agriculture and at the same time to whittle down the productive forces of feudal society, destroying the conditions for reproduction of the labor force. . . . This long drawn-out struggle . . . found its clearest expression in the rising of 1381. . . ."

[28]Slicher van Bath, *A.A.G.B.*, No. 12, p. 190. He describes the mechanism in this way: "The peasants felt discontented when they saw the low prices brought by agricultural produce, and contrasted them with the high prices and relatively high wages that obtained in industry. Often some further addition to the taxes, which the government or landowner thought might still be borne, provided the spark that set long-smouldering resentment aflame."

[29]Maurice Dobb, *Papers on Capitalism, Development, and Planning* (New York: International Publ., 1967), 11.

[30]See for example the discussion by Jean-Marie Pesez and Emmanuel Le Roy Ladurie concerning France in the fourteenth and fifteenth centuries. "Le cas français: vue d'ensemble," *Villages désertés et histoire économique, XIe-XVIIIe siècles* (Paris: S.E.V.P.E.N., 1965), 155. They also point out that the search for security may sometimes be forced upon the peasants by nearby towns for strategic considerations (see p. 156). See Carlo Cipolla, *Clocks and Culture, 1300–1700* (New York: Walker & Co., 1967a), 115.

[31]See the discussion by Georges Duby in "Démographie et villages désertés," *Villages désertés, et histoire economique, XIe-XVIIIe siècles* (Paris: S.E.V.P.E.N., 1965), 18–23.

[32]Karl Helleiner, "The Population of Europe from the Black Death to the Eve of the Vital Revolution", in *Cambridge Economic History of Europe.*, **IV,** E. E. Rich and C. H. Wilson, eds., *The Economy of Expanding Europe in the 16th and 17th Centuries* (London and New York: Cambridge Univ. Press, 1967), 15. See Duby, *Villages désertés*, 14, 16; Pesez & Le Roy Ladurie, *Villages désertés*, 181–183.

[33]See Wilhelm Abel, *Die Wüstungen des Ausgehenden Mittelalters*, 2nd ed. (Stuttgart: Verlag, 1955), 5–12.

[34]See Maurice W. Beresford, *The Lost Villages of England* (London: Lutterworth Press, 1954). Beresford dates the high point of depopulation (both total desertion of villages and reduction of

population therein) as between 1440 and 1520 (see p. 166). He considers enclosure to be the single greatest explanation of this phenomenon which he sees as a gradual development: "[D]epopulation came to villages where there was already a good deal of grassland alongside a diminishing number of husband-lands of corn; . . . enclosure and depopulation [are] an aim only slowly achieved. . . . [p. 210]."

[35]Pesez and Le Roy Ladurie come up with a figure of 5 to 7% of villages of eastern Languedoc deserted between 1328 and today. As they say: "These figures are not insignificant, but we are far from the 40% rate observed by Abel in Germany, and also from the figures calculated by Mr. Beresford." *Villages désertés*, p. 129. The rate differential tends to confirm the agrarian reorganization theme rather than the population decline theme. We know there was considerable difference in agrarian reorganization, and that France, for example, saw the creation of far fewer large domains than either England or Germany. Of course, there may have been differences in the rate of population decline in the fourteenth and fifteenth centuries, but here we are on weaker grounds, as so much of the evidence is inferential, from precisely such phenomena as deserted villages. Hence, we cannot use this evidence, or we would be involved in circular reasoning.

[36]Marc Bloch, *Les caractères originaux de l'histoire rurale français* (Paris: Lib. Armand Colin, 1961), **I,** 122.

[37]Henri Lefebvre, "Une discussion historique: du féodalisme au capitalisme: observations," *La Pensée*, No. 65, janv.-févr. 1956, 22.

[38]"The result of this increased pressure was not only to exhaust the goose that laid golden eggs for the castle, but to provoke, from sheer desperation, movement of illegal emigration from the manors. . . . [So] considerable did the problem of fugitives become and so great the hunger for labor, that, despite treaties and mutual promises, an actual competition developed to entice and steal the serfs of a neighboring domain—a competition which . . . involved the making of certain concessions, and the existence of which imposed its own limits on the further increase of feudal exploitation." Maurice Dobb, *Studies in the Development of Capitalism* (London: Routledge & Kegan Paul, 1916), 46–47.

[39]"In fact the fall in fixed payments, together with the decline in direct management and the necessity to spend money on repairs, significantly affected the financial standing of all lords during [the fourteenth and fifteenth centuries]. Everywhere they appeared to be short of money and on the look-out for outside profit, and for this reason often launched out into careers or adventures which took them away from their estates. However, the various ways of supplementing their incomes, such as taking employ with the more powerful princes who were in search of allies, or the hazardous path of political intrigue and matrimonial alliance, assured the maintenance of nearly all the great aristocratic fortunes." Georges Duby, *Rural Economy and Country Life in the Medieval West* (Columbia: Univ. of South Carolina Press, 1968), 330.

[40]"[The] ever more pronounced decline in the price of grain

compared to rural wages, which were maintained at such a very high level by the competition of town crafts and the spread of textile workers into many country districts of Europe, sealed the fate of all excessively large agricultural enterprises. Indeed it seems as if the eclipse of the demesne and the great decline in direct manorial cultivation occurred in the years after 1380, at any rate in France and England." Duby, *ibid*., 311.

An earlier statement of Duby was more cautious: "It seems probable consequently . . . that the large estate in the course of the second half of the 14th and during the 15th century, if it was not notably reduced in size and sometimes on the contrary enlarged, at least lost its cohesion." "Le grand domaine de la fin du moyen âge en France," *Première Conférence Internationale d'Histoire Economique*, Stockholm, August 1960: *Contributions* (Paris: Mouton, 1960), 338.

[41] "The final establishment of money rent took place in circumstances unprofitable for those who received it. It was to a great extent forced on them, since it was the rise of the popular movement which compelled lords to be more accommodating." Kosminsky, *Past & Present*, No. 7, p. 33.

[42] See Duby: "We must constantly be on our guard against considering the abandonment and regrouping in the fourteenth and fifteenth centuries of *all* [italics added—I. W.] the fields into a few coherent village territories subject to strict agrarian constraints as signs of economic malaise, agricultural failure or a too sudden decline of the population. On the contrary, these topographical transfers reflect a critical phase in the growth of the cereal economy, postponed for a century or two, but quite comparable in their development and nature to those of which the Ile de France was the scene in the thirteenth century. Thus, in north-western Germania the lords enclosed their woods whose value was increasing. They surrounded them with hedges, shut out the peasants' swine and henceforth forbade periodic heat burning. The power of the lords enforcing this enclosure, caused the families who in these woodland zones drew much of their subsistence from forest, animal husbandry and related cultivation to change their objectives. They were obliged to alter their way of life and the *Waldbauer* became an *Ackermann*, a genuine cultivator settled on permanent fields." *Rural Economy*, p. 309.

[43] *Ibid*., p. 315.

[44] "The great breeding season of English capitalism was in the early phases of the Hundred Years War, when the exigencies of Royal finance, new experiments in taxation, speculative ventures with wool. the collapse of Italian finance and the breeding of the new cloth industry, all combined to bring into existence a new race of war financiers and commercial speculators, army-purveyors and wool-monopolists. But the race was as short-lived as it was new. The great fortunes were lost as easily as they were made, and the period of reckless finance and gigantic fiscal experiments, passed away with the first stage of war. . . .

The English merchant class responded to the stability and recession of trade in the way of all merchants. They adopted a policy

of regulation and restriction, impeding the entry of new recruits into commerce and attempting to share out the available trade. . . . What is sometimes regarded as evidence of a typical medieval regulation is in fact nothing else than instances of fifteenth-century departure from the freer and more speculative conditions of the earlier centuries." M. M. Postan, "The Fifteenth Century," *Economic History Review*, **IX,** 2, May 1939, 165–166.

[45] "We believe that it was not depopulation, but rather the liquidation of the manorial economy, the commutation and the diminution of feudal rent which brought about the improvement of the situation of the peasants and the expansion of simple commercial production which prepared the way for capitalist relations. A moderate reduction of population . . . could only intensify and modify . . . the progress of this development." Eugen A. Kosminsky, *Studi in onore di Armando Sapori*, **I,** p. 567.

[46] Marc Bloch, "The Rise of Dependent Cultivation and Seigniorial Institutions" in M. M. Postan, ed., Cambridge Economic History of Europe, **I:** *The Agrarian Life of the Middle Ages* (London and New York: Cambridge Univ. Press, 1966), 269.

[47] "The rival of the city-state, the territorial state, rich in hopes and in men, showed itself to be more capable of meeting the costs of modern war; it supported mercenary armies, procured the costly material for artillery; it soon would permit itself the great luxury of large-scale maritime warfare. Its rise had been for a long time an irreversible phenomenon." Braudel, *La Méditerranée*, **II,** p. 8.

We must of course be careful not to anticipate. Sir Charles Oman dates the historical break in the art of war as occurring only in 1494. See *A History of the Art of War in the Sixteenth Century* (London: Methuen, 1937), 30. For Oman the two key "tendencies" [Note well, however, this word] were "the progressive importance of firearms, and (partly in consequence of that progress) the utilization of field entrenchments, which would make cavalry charges less and less practicable [p. 33]." Indeed, some authors go further and suggest that the social impact of the new military technology is exaggerated even for the sixteenth century. See for example H. M. Colvin, "Castles and Government in Tudor England," *English Historical Review*, **LXXXIII,** 1968, 226. Nevertheless, if we remember we are describing trends or tendencies, then we can ascertain a cumulative and continuous impact beginning already in the fourteenth century.

[48] "The last two centuries of the Middle Ages, throughout western and central Europe, was an era of rural malaise and of depopulation. . . . The large political constructs of the preceding period . . . appeared provisionally to be unable to fulfill their mission of police and order which was their very reason for being." Bloch, *Caractères originaux*, **I,** pp. 117–118.

[49] "Thus the State from this time onward began to acquire that essential element of its supremacy—financial resources incomparably greater than those of any private person or community." Bloch, *Feudal Society*, p. 422.

[50] David Lockwood has isolated the theoretical problem involved:

"The relationship between bureaucracy and taxation is a highly interdependent one. The efficiency of the bureaucracy depends upon the effectiveness of its taxation system; and the effectiveness of its taxation system depends upon the efficiency of the bureaucratic apparatus. Thus, for whatever reason, any increase in the bureaucratic load or decrease in taxation capacity may generate a vicious circle of decentralization of power. Indeed, it might be argued that the 'taxation' crisis of patrimonial bureaucracy is essentially analogous to the 'production' crisis of capitalism. . . . The points of tension are those which represent an actualization of the potential for 'feudalization': the tendency of officials to 'appropriate' the economic and political resources of the office; the struggle of large land-owners to gain immunity from taxation and/or usurp fiscal and political functions; and the economic and political dependency into which the peasantry are forced in seeking protection against the tax burden of the bureaucratic center. These 'centrifugal' tendencies may be seen as both a cause and a consequence of the possible failure of mechanisms for maintaining effective taxation capacity and central control." "Social Integration and System Integration" in George K. Zollschan and Walter Hirsch, eds., *Explorations in Social Change* (Boston, Massachusetts: Houghton, 1964), 254.

Gabriel Ardant's formulation of this dilemma places greater emphasis on the fiscal policy-choices of the state leading to structural change rather than the reverse, although it is hard to separate the two. Ardant says: "Apart from confiscation, which in all eras tempted governments that were unable to resolve their fiscal difficulties, but which gave them only resources that were limited in time and often wasted, whether we are talking of the profits of conquest, of expropriation of the church's property, or of the systematic persecution of certain social categories, two types of solutions were available to the authorities:

"The first type, the feudal solution, often preceded by a manorial economy and the venality of offices, tended to result in a significant number of cases in actual dismemberment of the state.

"To these formulas we can oppose borrowing and inflation, financial expedients which we shall see also depend on the structure of the economy.

"We are to be sure abstracting policies, of quite different dimensions, by which the State transforms the social organization of the society." *Théorie sociologique de l'impôt* (Paris: S.E.V.P.E.N., 1965), **I,** 541 and ff.

[51]For example, Ardant points out that: "To obtain credits judged necessary within the framework of an unfavorable financial situation, a state may be led to make pledges *(gages)* in the broad sense of this term which signify a restriction of its sovereignty: a specific source of income may be turned over to foreign creditors; a degree of supervision of financial administration, extended then to political administration, may be exercised by the creditors, or by the State which backs them, etc. [*Ibid.*, **I,** pp. 549–550]."

[52]Max Weber, in contrasting western Europe to India, states: "Also in the occidental state at the beginning of modern times there appeared tax farming and the commissioning of entrepreneurs with

army recruitment—entrepreneurs to whom finance had largely to be entrusted. In India, however, under the great kingdoms those central institutions failed to develop which in the West allowed the princes gradually to take back military and financial administration into their own hands." *The Religion of India* (New York: Free Press, 1958), 69.

[53] "The venality of offices, despite its very severe inconveniences, had then the political consequence [of strengthening the state]. It is, for civil administration, the equivalent of the system of paid military troops, 'mercenaries'—a system denounced with equal vigor, . . . but one nonetheless tied to the great and growing fortune of royal power, which thus no longer depended only on the military force of feudal nobility." F. Chabod, "Y-a-t-il un état de la Renaissance?" in *Actes du Colloque sur la Renaissance* (Paris: Lib. Philosophique J. Vrin, 1958), 66.

[54] Duby, *Rural Economy*, p. 331.

[55] Léopold Génicot, "Crisis: From the Middle Ages to Modern Times," in *Cambridge Economic History of Europe*, **I:** *The Agrarian Life of the Middle Ages*, 2nd ed. (London and New York: Cambridge Univ. Press 1966), 699.

[56] "The importance given to the *reputation* of the prince, both by theoreticians and by men of action (for example, Richelieu), goes with the ever greater attention paid to 'Majesty': all of which little by little created distance between the prince and his subject, placing him on a plane where one could no longer dare to be familiar." Chabod, *Actes*, p. 72.

[57] "If the power of the prince was increasing, another, power also grew: that of the bureaucratic 'corps'. Thus was created esprit de corps, linking them one to the other, despite all the personal and private personality disputes, and not only among the *officiers de justice*, the most senior bureaucrats, but among the others as well . . .

"This growing power of the 'fourth estate', the ally—in political terms—of the prince's power, which had been growing simultaneously (administrative centralization and political absolutism going thus hand in hand) is in fact the fundamental element to which we should pay attention [*Ibid*., pp. 68–69, 72]."

[58] Edward Miller has a brief discussion of how the now far more complex interplay of interests began to take shape in the late medieval period in the various European states. See "Government and Economic Policies and Public Finances, 900–1500," *Fontana Economic History of Europe*, **I,** 8, 1970, 34-40.

[59] See Yves Renouard, "1212–1216: Comment les traits durables de l'Europe occidentale moderne se sont définis au début du XIIIe siècle," *Annales de l'Université de Paris*, **XXVIII,** 1, janv.–mars 1958, 5–21.

[60] "A large unified body, more or less congruent with Latin Christianity, and composed of a multitude of small autonomous cells, the seigniories, gave way to a juxtaposition of vast territorial sovereignties, quite distinctive, the first beginnings of the States of modern Europe." Edouard Perroy *et al., Le Moyen Age*, Vol. III of

Histoire Générale des Civilisations (Paris: Universitaires de France, 1955), 369–370.

[61]"In fact, the wheel had turned. The [sixteenth] century in its early years favored large States [Spain, Ottoman Empire], which were, as the economists would say, the political enterprise of optimum dimensions. As the century went on, and for reasons that we cannot adequately explain, these large bodies were betrayed bit by bit by circumstances. Was the crisis transitional or structural? Weakness or decadence? In any case, at the beginning of the 17th century, only middle-sized states seemed vigorous. Thus the France of Henry IV, this sudden splendor; or the little England of Elizabeth, pugnacious and radiant; or Holland organized around Amsterdam; or that Germany invaded by material quiescence from 1555 to the years preceding the Thirty Years' War, in which she would founder, body and soul. In the Mediterranean, such is the case of Morocco, once again rich in gold, and of the Regency of Algiers, the story of a city becoming a territorial state. It is the case as well of Venice radiant, glittering with luxury, with beauty, with intelligence; or of the Tuscany of Grand-Duke Ferdinand. . . .

"In other words, the Empires must have suffered, more than the middle-sized states from the regression of 1595–1621." Braudel, *La Méditerranée*, **II**, p. 47.

[62]*Ibid.*, **II**, p. 10.

[63]Fr. Hartung & R. Mousnier, "Quelques problèmes concernant la monarchie absolue," in *Relazioni del X Congresso Internazionale di Scienze Storiche*, **IV:** *Storia moderna* (Firenze: G. B. Sansoni, 1955), 47.

[64]V. G. Kiernan, "State and Nations in Western Europe," *Past & Present*, No. 31, July 1965, 35–36.

[65]Gustaf Utterström, "Climatic Fluctuations and Population Problems in Early Modern History," *Scandinavian Economic History Review*, **III**, 1, 1955, 47.

[66]*Ibid.*, p. 5.

[67]*Ibid.*, p. 24.

[68]*Ibid.*, p. 39.

[69]See *ibid.*, pp. 14–15. However Karl Helleiner, citing work by Ernst Rodenwaldt, suggests that, although the human flea is a less important vector of bubonic plague than the rat flea, it may have been more significant in the Middle Ages, thus reducing the import of Utterström's hypothesis. See Helleiner, *Cambridge Economic History of Europe*, **IV**, p. 7.

[70]Duby, *Rural Economy*, p. 307.

[71]*Ibid.*, p. 308.

[72]Helleiner, *Cambridge Economic History of Europe*, **IV,** p. 76.

[73]"It does not appear likely that the periodic ups and downs observed in the economic life of western Europe after 1200 are the result of climatic changes. . . ." Slicher van Bath, *A.A.G.B.*, No. 12, p. 8.

[74]After pointing out that some of Utterström's evidence is not a

priori climatic, he points to methodological flaws in the use of meteorological data. He suggests that Utterström has not given enough long trend data to sustain his generalizations. "Let us imagine a historian or an economist who would claim to demonstrate a long and lasting rise in prices, arguing only from some exceptional 'cyclical' points of the curve he wishes to interpret, while neglecting, not even perhaps knowing, the general shape of the curve in question." Emmanuel Le Roy Ladurie, *Histoire du climat depuis l'an mil* (Paris: Flammarion, 1967), 17.

[75]Norman J. G. Pounds, "Overpopulation in France and the Low Countries in the Later Middle Ages," *Journal of Social History*, **III**, 3, Spring 1970, 245. Pounds talks of a "permanent condition of undernourishment." Fernand Braudel takes a similar position: "[In a primarily agricultural economy], the rhythm, the quality, the inadequacy of harvests determine the whole of material life. There can result from them brusque harm, like bites, in the sap-wood of trees or in the flesh of men." *Civilisation matérielle et capitalisme* (Paris: Lib. Armand Colin, 1967), 32–33.

[76]"The people of the Dutch coastal areas, who lived for the most part from stock-farming and fishery and consequently ate more animal products and fats than the arable-farming folk, perhaps for that reason, did not succumb to the epidemics of the fourteenth century to anything like the same degree [as other Europeans]." Slicher van Bath, *A.A.G.B.*, No. 12, pp. 89-90.

[77]"For the plague, once it had been introduced [in 1347–1351] did not disappear from Europe until about 350 years after its first outbreak. In endemic or epidemic form it continued to exercise a profound influence both on the long-term average and on short-term fluctuations of the death rate." Helleiner, *Cambridge Economic History of Europe*, **IV**, p. 5.

[78]Karl Helleiner puts forth the following hypothesis: "[The] very improvements in the economic position of the lower classes [following the depopulation caused by the Black Death] may have militated against speedy demographic recovery. It is to be assumed on *a priori* grounds, and there is some evidence to support this view, that those improvements led to an upward revision of the living standard, involving a partial shift from a cereal to a meat standard of consumption. This change in consumers' preference is reflected in the movement of relative prices of animal products and grain, which must have intensified [the] *Wüstung* process . . . , one aspect of which was a partial 'decerealization' of Europe in favour of animal husbandry. However, given a certain level of agrarian technology, five or six more times as much land is required for the raising of one calorie of animal food as is needed for the production of one calorie of vegetable food. It follows that whatever relief from pressure of population on land was afforded by the initial demographic slump must have been partially offset by that change in the pattern of consumption and production. This hypothesis helps to explain an otherwise puzzling fact, namely that the later Middle Ages should have suffered scarcely less than previous centuries from death and famine, even though man's *per capita* supply of fertile land was undoubtedly much bigger in this period [*Ibid.*, pp. 68–69]."

[79]"The regression of population in the 14th and 15th centuries aggravated, rather than resolved, the shortage of space. Therefore it did not diminish the pressure which had been occurring during the 13th century. It may have increased it, by the fall of rent, the diminution of profit, and the worsening of the seigniorial burden. Capital which would have been tempted to turn to the land was attracted to some degree by other horizons." Chaunu, *L'expansion européenne*, p. 349.

[80]"But there were also plenty of instances where commutation involved not a mitigation but an augmentation of feudal burdens. Here it was merely an alternative to direct imposition of additional services. Commutation was most likely to have this character when resort to it was largely at the lord's initiative; the attempt to increase feudal revenue presumably taking this form because of a relative abundance of labour. . . . Probably it was the pressure of population upon the available land of the village, rendering it harder for the villager to obtain his subsistence and hence making hired labour cheap and relatively plentiful . . . that furthered the inducement to this commutation." Dobb, *Studies*, pp. 63–64.

[81]Archibald R. Lewis, "The Closing of the European Frontier," *Speculum*, **XXXIII,** 4, Oct. 1958, 475.

[82]*Ibid*., p. 476

[83]Andrew M. Watson, "Back to Gold—and Silver," *Economic History Review*, 2nd ser., **XX,** 1, 1967, 1.

[84]"We forget that, in antiquity and during the Middle Ages, what we should now consider as very poor mines were then held to be first rate. The Western Sudan was, from the 8th century until the discovery of America, the chief supplier of gold for the western world; the trade, commercialized first by Ghana, came under that name to the Mediterranean and enhanced the prestige of the kings who owned such a source of wealth:" R. A. Mauny, "The Question of Ghana," *Africa*, **XXIV,** 3, July 1954, 209.

Marian Malowist argues that it was the North African demand for gold (in order to sell it to Europeans) rather than the need of the Western Sudan for the salt they received in turn which was the primary stimulus for this expansion. See "Quelques observations sur le commerce de l'or dans le Soudan occidental au moyen âge," *Annales E.S.C*., **XXV,** 6, nov.–déc. 1970, 1630–1636.

[85]Watson, *Economic History Review*, **XX,** p. 34. See the remarkable collaborative article by R. S. Lopez, H. A. Miskimin and Abraham Udovitch in which they argue very convincingly that the years 1350–1500 see a steady outflow of bullion from north-west Europe to Italy to the Levant to India:

"Both luxury consumption by the non-agricultural population [of England] and extensive investments in the ornamentation of churches . . . exacerbated the already acute shortage of skilled craftsmen which followed the Black Death by causing a relative increase in the demand for their services. As a result, the wages of skilled artisans were considerably augmented and some of the new demand for luxury, not satisfied domestically, was diverted to areas beyond northern Europe by economic necessity as well as in search

of the exotic; the inevitable result of this demand was an increase in the export of money. Further, since the use of scarce labour in the production of domestic luxury proscribes its use for the manufacture of export articles, the potential foreign earnings of the northern economies was reduced. . . .

"[W]here had [the money] gone? . . . [T]he papacy was indeed a major drain of the metal supply of northern Europe. In addition to direct transfers of money, however, the more conventional channels of commerce tended, through the medium of luxury consumption, to produce the same result. . . . The continental termini of [the] north-south route [leading from the Hanse cities] were Milan, Genoa, and Venice; . . . it would seem there was an active and probably one-sided trade connecting the northern economy with the southern in such a way as to drain precious metals southward.

"In France, also, we find a widespread increase in the consumption of southern luxuries during the fourteenth and early fifteenth centuries. . . .

"England and France complained bitterly about the drain of precious metals by Italy, but this was largely the counterpart of the drain from Italy into the Levant. . . . [I]n spite of gold imports from north-western Europe, a moderate production of central European mines, and more substantial amounts coming from Senegal, there are abundant indications that the supply of gold was at best barely adequate and often scarce. Granted that man's gold hunger is chronically insatiable, it is. certain that trade with the Levant in the fourteenth and fifteenth centuries drained from Italy an ever growing amount of gold. . . . [T]he comparative ascendancy of luxury trade made Italy more dependent upon the Levant and increased the drain of precious metals in that direction. . . .

"[There is] an absolute contraction of the Egyptian economy by the end of the fourteenth century and . . . an absolute quantitative decline of all its sectors. . . . Egypt's economic crisis was accompanied by a breakdown of its monetary system. Gold and silver currency became increasingly scarce, and copper coins predominated in internal circulation and on all levels of transaction. . . .

"Among the numerous factors contributing to Egypt's shortage of specie in the late fourteenth and fifteenth centuries, the most central was her persistent unfavourable balance of payments in international trade. By the thirteenth century, the Nubian gold mines were exhausted to the point that the gold extracted barely covered expenses. A lively and profitable trade with the western Sudan kept Egypt supplied with gold until the latter part of the fourteenth century, at which time this trade declined and the African gold was siphoned off toward Europe. . . . While the source of Egypt's gold supply was contracting, there are no indications of a correspondingly significant decline in consumption of foreign products and luxury goods, or a parallel reduction of state expenditures for imports. . . .

Throughout the fifteenth century, Europe was the only area with which Egypt maintained a favourable balance of trade. . . . Egypt, at the beginning of the fifteenth century, was virtually living off the profits of the spice trade with Europe. . . . But only a fraction of this sum

remained in the country. The spice trade was a transit trade. In addition, Egypt was also contributing to [the] flow [of gold toward India] by its own internal consumption of spices and other imports from the Farther East. . . .

Thus, at least a good portion of the gold which began its long trek southward from Northern Europe in search of luxury products, travelling via Italy and Egypt, found its final resting place as additions to the already incredible gold accumulations of India." "England to Egypt, 1350–1500; Long-term Trends and Long-distance Trade," in M. A. Cook, ed., *Studies in the Economic History of the Middle East from the Rise of Islam to the Present Day* (London and New York: Oxford Univ. Press, 1970), 101, 102, 103, 104, 105, 109, 110, 114, 117, 123, 126, 127–128.

[86]"See Desanka Kovacevic, "Dans la Serbie et la Bosnie médiévales: les mines d'or et d'argent," *Annales E.S.C.*, **XV,** 2, mars-avr. 1960, 248–258.

[87]"[There was a] sudden rise of mineral production as of 1460, primarily in Central Europe. In this domain, technology became scientific. The invention of better methods of drilling, drainage and ventilation made possible the exploitation of the mines in Saxony, Bohemia, and Hungary as far as 600 feet down; the increased use of hydraulic power increased the strength of the bellows and the drills such that the hearths could come down from the mountainsides, and be located in the valleys. The building of the first blast-furnaces ten feet high tripled the productive capacity of the old hearths. It is not impossible that, between 1460 and 1530, the extraction of mineral quintupled in Central Europe." Perroy, *Le Moyen Age*, **III,** pp. 559–562.

[88]See V. M. Godinho, "Création et dynamisme économique du monde atlantique (1420–1670)," *Annales E.S.C.*, **V,** 1, janv.–mars 1950, 33; Pierre Chaunu, *Séville et l'Atlantique (1504–1650)*, **VIII** (1) (Paris: S.E.V.P.E.N., 1959), 57.

[89]America which relieved, in the Mediterranean, the African gold sources was an even more important substitute for German silver mines." Braudel, *La Méditerranée* **I,** p. 433.

[90]"In every direction where commerce spread, it created the desire for the new articles of consumption which it brought with it. As always happens, the aristocracy wished to surround themselves with the luxury or at least the comfort befitting their social rank." Henri Pirenne, *Economic and Social History of Medieval Europe* (London: Routledge & Kegan, 1936), 81.

"When we take account of the fact that warfare took its main toll from the upper orders (since they alone were permitted to bear arms) we may well doubt there was a significant *relative* growth in the size of the parasitic class. . . . On the other hand, there is no reason to doubt the reality of the growing extravagances of the feudal ruling class. . . . But was this growing extravagance a trend which can be explained by the nature of the feudal system, or does it reflect something which was happening outside the feudal system? . . . . The rapid expansion of trade from the 11th century on brought an ever-increasing quantity and variety of goods within its reach." Paul

Sweezy, *Science and Society*, **XIV,** pp. 139-140.

Maurice Dobb, however, argues: "The transition from coercive extraction of surplus labour by estate-owners to the use of free hired labour must have depended upon the existence of cheap labour for hire (i.e. of proletarian or semi-proletarian elements). This I believe to have been a far more fundamental factor than proximity of markets in determining whether the old social relations survived or were dissolved." *Science and Society*, **XIV,** p. 161.

R. H. Hilton sides with Dobb: "The economic progress which was inseparable from the early rent struggle and the political stabilization of feudalism was characterized by an increase in the total social surplus of production over subsistence needs. This, not the so-called revival of international trade in silks and spices, was the basis for the development of commodity production." "The Transition from Feudalism to Capitalism," *Science & Society*, **XVII,** 4, Fall 1953, 347.

[91]See B. H. Slicher van Bath, "The Rise of Intensive Husbandry in the Low Countries," in J. S. Bromley & E. H. Kossman, eds., *Britain and the Netherlands* (London: Chatto, 1960), 130–153.

[92]*Ibid.*, p. 137.

[93]"These movements of improvement *(bonification)* were in response to the requirements of the towns, whose population never stopped growing in the 15th and 16th centuries. Urgent needs of provisioning these towns led them to develop agricultural production in their environs, either by cultivating new terrains, or by practicing irrigation" Braudel, *La Méditerranée*, **I,** p. 62.

[94]Joel Serrão, "Le blé des îles atlantiques: Madère et Açores aux XVe et XVIe siècles," *Annales E.S.C.*, **IX,** 3, juil.-sep. 1954, 338.

[95]See J. A. van Houtte, "L'approvisionnement des villes dans les Pays-Bas (Moyen Age et Temps Modernes)," *Third International Conference of Economic History*, Munich 1965 (Paris: Mouton, 1968), 73–77.

[96]"In the 15th century, Portugal became more and more open to Hanseatic traders and to Bretons who supplied the country with wheat and wood, the import of which was already in that epoch indispensable." Marian Malowist, "Les aspects sociaux de la première phase de l'expansion coloniale:" *Africana Bulletin*. **I,** 1964, 12.

[97]See Ruggiero Romano, "A propos du commerce de blé dans la Méditerranée des XIVe et XVe siècles," in *Eventail de l'histoire vivante: hommage à Lucien Febvre* (Paris: Lib. Armand Colin, 1953), 149–161.

[98]The eight tiers Bennett lists are (1) milled-grain products and starchy roots and tubers, including plantain; (2) vegetable fats and oils; (3) dried pulses (beans, peas, lentils); (4) sugar; (5) milk and its products; possibly fish; (6) pig meat; (7) beef, mutton, goat, buffalo, and poultry and eggs; (8) vegetables and fruits. See M. K. Bennett, *The World's Food* (New York: Harper, 1954), 127–128. "Why should the general hierarchy exist? It is undoubtedly the reflection of relative costs of production and the inherent calorie-bearing qualities of the several foods [p. 128]."

[99]See G. B. Masefield, "Crops and Livestock," *Cambridge Economic History of Europe*, **IV:** E. E. Rich and C. H. Wilson, eds., *The Economy of Expanding Europe in the 16th and 17th Centuries* (London and New York: Cambridge Univ. Press, 1967), 295.

[100]Anthony Luttrell has traced the picture *prior* to 1500: "The Latins were producing sugar with Muslim and other slaves in Syria, Cyprus and other Levantine colonies from the 12th century onward and by 1404, when Giovanni della Padua of Genoa received a royal licence to establish a plantation in Algarve, the Genoese had apparently transferred it from Sicily to southern Portugal. It was largely the Genoese who provided the initiative, the capital, the milling and irrigation techniques for the introduction of sugar to the Azores and Madeiras, and who exported it from the islands as far afield as Flanders and Constantinople. They also helped provide the necessary labor; Antonio da Noli, for example, was carrying Guineans to Cape Verde isles in the 1460's." "Slavery and Slaving in the Portuguese Atlantic (to about 1500)," in Centre of African Studies, University of Edinburgh, *The Transatlantic Slave Trade from West Africa* (mimeo, 1965), 76.

[101]See E. E. Rich, "Colonial Settlement and its Labour Problems," in *Cambridge Economic History of Europe*, **IV:** E. E. Rich and C. H. Wilson, eds.. *The Economy of Expanding Europe in the 16th and 17th Centuries* (London and New York: Cambridge Univ. Press, 1967), 308.

[102]For example, Serrão notes of Madeira: "About 1475, the wheat cycle ended. . . . Sugar had killed wheat." *Annales E.S.C.*, **IX,** p. 340. Serrão points out that when this happened, the Azores became Portugal's wheat-growing area, supplanting primarily Madeira. This cyclical pattern was "true in the 16th century, as in the 17th, and still in the 18th." *Ibid.*, p. 341.

[103]See Godinho, *Annales E.S.C.*, **V,** p. 33.

[104]"What people are generally less well aware of is that the situation sketched in 1750—large rations of bread and a little meat . . . was itself the result of a deterioration and does not apply when we go back in time to the Middle Ages." Fernand Braudel and Frank C. Spooner, "Prices in Europe from 1450 to 1750," in *Cambridge Economic History of Europe*, **IV:** E. E. Rich and C. H. Wilson, eds., *The Economy of Expanding Europe in the 16th and 17th Centuries* (London and New York: Cambridge Univ. Press, 1967), 414.

[105]"From 1400 to 1750 Europe was a great consumer of bread and more than one-half vegetarian . . . Only this 'backward' diet allowed Europe to carry the burden of a continually increasing population. . . . The consumption of bread put that of meat more and more in the background until the mid-nineteenth century." *Ibid.* p. 413. See also W. Abel, "Wandlungen des Fleischverbrauchs and der Fleischsrrsorgung in Deutschland," *Bericht über Landwirtschaft*, n.s., **22,** 1938, 411–452, cited in Slicher van Bath, *Agrarian History*, p. 204.

[106]"The early explorations of the Portuguese along the West

African coast yielded only one plant of immediate interest, grains of paradise. . . . They could now be obtained more cheaply than by the overland trans-Saharan route, and the trade gave its name to the 'Grain Coast'; but the plants could not he acclimatized in Europe." Masefield, *Cambridge Economic History of Europe*, **IV,** p. 276.

[107]Chaunu, *L'expansion européenne*, p. 354.

[108]G. B. Masefield points out how the link between the Americas and the Eastern Hemisphere changed the agrarian map of the world: "The dispersal of crops and livestock which followed the establishment of these links was the most important in human history, and perhaps had the most far-reaching effects of any result of the Discoveries. Without the American crops, Europe might not have been able to carry such heavy populations as she later did, and the Old World tropics would not have been so quickly developed. Without the European livestock, and especially horses and mules for transport and cultivation, the American continent could not have been developed at the rate it had been." *Cambridge Economic History of Europe*, **IV,** p. 276.

[109]Braudel speaks of a "wood famine" with reference to various parts of Italy. "The Mediterranean navies became accustomed, little by little, to go looking further and further for what they couldn't find in their own forests. In the sixteenth century, Nordic wood arrived in Seville in boats filled to the brim with planks and beams." *La Méditerranée*, **I,** p. 131.

See Frederic Lane: "When this depletion of the oak woods was first clearly recognized—in the last half of the fifteenth century—the shortage seems to have been peculiar to Venice. At least the Ragusans and the Basques had a sufficiently plentiful supply so that their competition was severely felt. At the end of the sixteenth century the scarcity of oak timber appears to have been general throughout Mediterranean countries." "Venetian Shipping During the Commercial Revolution," in *Venice and History* (Baltimore, Maryland: Johns Hopkins Press, 1966), 21.

H. C. Darby makes the same point for England: "The growth of England's mercantile marine and the development of the English navy from the Tudor age onward depended upon an adequate supply of oaks for the hulls of ships; fir trees for masts, together with such 'naval stores' as pitch and tar, were imported from Baltic lands." "The Clearing of the Woodland in Europe," in William L. Thomas, Jr., ed., *Man's Role in Changing the Face of the Earth* (Chicago, Illinois: Univ. of Chicago Press, 1956), 200.

[110]See Godinho, *Annales E.S.C.*, **V,** p. 33.

[111]The key element in making metallic money symbolic is to make the coins with a commodity value lower (preferably far lower) than their monetary value. Yet Garlo Cipolla points out this was not adopted for petty coins in England until 1816 and in the United States until 1853. See *Money, Prices*, p. 27.

[112]Marc Bloch, *Esquisse d'une histoire monétaire de l'Europe* (Paris: Lib. Armand Colin, 1954), 50.

[113]"The majority, if not the totality of experts consulted by the later Capetian [monarchs in France] were merchants, often Italian

merchants, at one and the same time long-distance merchants and moneylenders to kings and notables; frequently also mint farmers and sellers of precious metals [Bloch, *ibid.*, p. 52]."

[114]"In most cases the mints were not operated directly by the State, but were farmed out to private persons who coined money out of the metal that other private persons brought to them. The controlling interest of these mint farmers was naturally that of private profit, not that of public utility. In those cases in which a king himself ran a mint he also acted more often as a private entrepreneur than as head of the State." Cipolla, *Money, Prices*, p. 28.

[115]Marc Bloch cites the striking fifteenth century example of the French *Chambre des Comptes* itself which, "when it calculated the transfers from one royal account to another, instead of simply inscribing the sum transferred in *livres, sous* and *deniers*, took care to attach to it a coefficient intended to take account of the modifications which had in the interim occurred to the metallic worth of these units. 'Due from the preceding account 416 *livres* 19 *sous tournois* of weak money . . . which in strong i.e. current] money is worth 319 *livres* 19 *sous tournois*.' " *Esquisse d'une histoire*, p. 49.

[116]H. V. Livermore, "Portuguese History," in H. V. Livermore, ed., *Portugal and Brazil, an Introduction* (London and New York: Oxford Univ. Press (Clarendon) 1953), 59.

Vitorino Magalhães-Godinho sees a direct link between the cessation of the violent social struggle in Portugal (1383–1385) and the Portuguese expedition to Ceuta in 1415. See *L'économie de l'empire portugais aux XVe et XVIe siècles* (Paris: S.E.V.P.E.N., 1969), 40.

[117]"Historians see a connection between the great wars of the 14th and 15th centuries (including the French descent into Italy) and the weakening of the income-level of the nobility. . . . Does not the beginning of the great expansion movements in the 15th century (even in the 14th century with the colonization of the Atlantic islands) belong to the same group of events and was it not provoked by identical causes? We could consider as parallel the expansion in Eastern Europe, and the attempts of the Danish and German nobility to conquer Scandinavia." Marian Malowist, "Un essai d'histoire comparée: les mouvements d'expansion en Europe au XV et XVI siècles," *Annales E.S.C.*, **XVII,** 5, sept.–oct. 1962, 924.

[118]See Malowist: "It seems clear that in the first phase of Portuguese colonial expansion . . . , the element of the nobility plays a dominant role. . . . As the process of development of the Portuguese colonial empire went on, the share of Portuguese merchants in the overseas trade grew. . . . It seems that the process of Spanish colonization of America was analogous." *Africana Bulletin*, No. 1, pp. 32–34. Similarly, Chaunu, citing Godinho as his authority, distinguishes two kinds of Portuguese expansion: "an expansion that was primarily overland, hence by the nobility and political in form, represented by the taking of Ceuta and the extension of the *Reconquista* into Morocco; and an essentially mercantile expansion, hence primarily by the bourgeoisie, along the

coast of Africa." *L'expansion européenne*, p. 363. Chaunu adds, as had Malowist, that he is tempted to extend this explanation to the Spanish conquest of America.

Luis Vitale is ready to go further in assessing the role of the bourgeoisie. He argues: "Portugal, in 1381, witnessed the first bourgeois revolution, four centuries before that of France. The commercial bourgeoisie of Lisbon, connected through trade with Flanders, removed the feudal lords from power. The ultimate failure of the revolution showed that conditions were unripe for the triumph of the bourgeoisie, but their rise was reflected in the trade with the North Atlantic, in the plans of Henry the Navigator, and above all, in the discoveries of the fifteenth century." "Latin America: Feudal or Capitalist?" in James Petras and Maurice Zeitlin, eds., *Latin America: Reform or Revolution?* (Greenwich, Connecticut: Fawcett, 1968), 34.

[119]"[R]eligion was the pretext, as much as the cause, of these persecutions. . . . Still later, as Georges Pariset remarked a long time ago, [the law of numbers also operated] against French Protestants in the age of Louis XIV." Braudel, *La Méditerranée*, **I,** p. 380.

[120]Rich, *Cambridge Economic History of Europe*, **IV,** pp. 302–303.

[121]This self-definition had of course a long history on the Iberian peninsula. See Charles Julian Bishko: "[T]hose eight centuries of now slow, now rapid southward advance against the Moors were not merely an Iliad of military and political combat, but above everything else a medieval *repoblación*, or recolonization, of the Iberian Peninsula." "The Castilian as Plainsman: The Medieval Ranching Frontier in La Mancha and Extremadura," in Archibald R. Lewis and Thomas F. McGunn, eds., *The New World Looks at Its History* (Austin: Univ. of Texas Press, 1969), 47.

[122]Chaunu, *Séville*, **VIII** (1), p. 60.

[123]"There does not exist, in all of the North Atlantic, a place more ideally suited for navigation in the direction of the warm waters than the coastal fringe which goes from north of Lisbon to Gibraltar or possibly from Lisbon to the northern tip of Morocco. There alone one will find, alternately, a sure wind to take you from the coast and into the open seas, in the full heart of the ocean, at the low point [*racine*] of the tradewinds, at the moment of the summer solstice. and a wind to bring you back, the counterflow [*contreflux*] of the middle latitudes from autumn to early spring [*petit printemps*.]" Pierre Chaunu, *Seville* **VIII** (I), p. 52. A helpful map is to be found in Charles R. Boxer, *The Portuguese Seaborne Empire, 1415–1825* (New York: Knopf, 1969), 54–55. See Braudel, *Civilisation matérielle et capitalisme*, pp. 310-312.

[124]"It is incontestable that the prodigious colonial and commercial development of the Iberian countries at the dawn of Modern Times was made possible in large part by a gradual growth in their external commerce during the latter centuries of the middle ages." Charles Verlinden, "Deux aspects de l'expansion commerciale du Portugal au moyen âge," *Revista Portuguêsa de História*, **IV,** 1949, 170. See also Charles Verlinden, "The Rise of Spanish Trade in the Middle

Ages," *Economic History Review*, **X,** 1, 1940, 44–59. A similar point is made by Michel Mollat in "L'économie européenne aux deux dernières siècles du Moyen-Age," *Relazioni del X Congresso Internazionale di Scienze Storiche* (Firenze: G. B. Sansoni, 1955) **III,** *Storia del medioevo*, 755.

António H. de Oliveira Marques spells out the nature of Portuguese trade with Flanders in the thirteenth and fourteenth centuries in "Notas para a história da feitoria portuguesa na Flandres no século XV," *Studi in onore di Amintore Fanfani*, **II.** *Medioevo* (Milano: Dott. A. Giuffrè-Ed., 1962), 437–476. He notes that already in 1308 there was a Portuguese "nation" in Bruges and that goods were transported on Portuguese ships. (See p. 451). See Godinho, *L'économie portugaise*, p. 37.

[125]K. M. Panikkar points to Genoa's desire to capture the India trade from the thirteenth century on. "Finally, through Spain and Portugal, the Genoese were able to break through Venetian monopoly and Muslim blockade. . . ." *Asia and Western Dominance* (London: Allen & Unwin, 1953), 26–27. While this account of the decline of the Venetian monopoly is oversimple, as we shall see in Chapter 6, Panikkar is correct to point to Genoa's long-standing desire in this regard.

[126]Charles Verlinden, "Italian Influence in Iberian Colonization," *Hispanic American Historical Review*, **XXXIII,** 2, May 1953, 199.

[127]*Ibid*., p. 200.

[128]See Virginia Rau, "A Family of Italian Merchants in Portugal in the Fifteenth Century: the Lomellini," *Studi in onore di Armando Sapori* (Milano: Istituto Edit. Cisalpino, 1957), 718.

[129]Verlinden, *Hispanic American Historical Review*, p. 205. See also Charles Verlinden, "La colonie italienne de Lisbonne et le développement de l'économie métropolitaine et coloniale portugaise," *Studi in onore di Armando Sapori* (Milano: Istituto Edit. Cisalpino, 1957), **I,** 615–28.

[130]Rau, Studi *in onore di Armando Sapori*, p. 718.

[131]*Ibid*., p. 719. Italics added.

[132]"The creation of the internal market [in Portugal] reached its high point and felt its first brutal limitations in the 14th century. Probably it was because Portugal belonged to the rich Islamic zone that it had maintained exchange at a rather high level of activity, higher than that of western Europe, one in which there was a *predominance* of monetary payments. . . . Thus it was that the peasantry, uprooted. rebelling against the growing violence of seigniorial exploitation, ruined by the fall in purchasing power of currency, attracted by the large cities on the coast, contributed to the enrichment of these mercantile cities and to the extension of trade." J.-G. DaSilva, "L'autoconsommation au Portugal (XIVe–XXe siècles)," *Annales E.S.C.*, **XXIV,** 2, mars–avr. 1969, 252. Italics added.

[133]"An important contributing factor [to Portugal's lead] was that during the whole of the 15th century Portugal was a united kingdom, virtually free of civil strife; whereas France was distracted by the

closing stages of the Hundred Years' War—1415 was the date of the battle of Agincourt as well as the capture of Ceuta [by the Portuguese]—and by rivalry with Burgundy; England by the struggle with France and the War of the Roses; and Spain and Italy by dynastic and other internal convulsions." C. R. Boxer, *Four Centuries of Portuguese Expansion, 1415–1825* (Johannesburg: Witwatersrand Univ. Press, 1961), 6.

[134]"Under feudalism a state was in a certain sense the private property of a prince in the same way that the fief was the private property of a vassal. . . . Princes and their vassals extended the jurisdictions of their courts, the cultivation of their fields, and the conquests of their armies as profit-seeking ventures. Later, much of the spirit and legal forms of feudalism were applied to oceanic expansion." Frederic C. Lane, "Force and Enterprise in the Creation of Oceanic Commerce," in *Venice in History* (Baltimore, Maryland: Johns Hopkins Press, 1966), 401–402.

[135]See Fernand Braudel, *Civilisation matérielle et capitalisme*, p. 24.

[136]Chaunu, Séville, **VIII** (1), p. 50.

[137]Lynn White, Jr., "What Accelerated Technological Progress in the Western Middle Ages?" in A. C. Crombie, ed., *Scientific Change*, (New York: Basic Books, 1963), 277.

[138]"The chief factor making for innovation in a community is prior innovation. Applying this hypothesis to the Middle Ages as a whole, it would appear that to some extent the greater originality of the West is related to the fact that Latin Christendom was far more profoundly shaken than the East [Byzantium and Islam] ever was by wave after wave of barbarian invasion, extending, with interruptions, from the 3rd century into the 10th. . . . The West . . . was a molten society, ready to flow into new moulds. It was singularly open to change, and agreeable to it [*Ibid*., p. 282].

[139]Carlo Cipolla, *Guns and Sails in the Early Phase of European Expansion, 1400–1700*. London: Collins, 1965, 106–107.

[140]See Joseph Needham, "Commentary on Lynn White, Jr., "What Accelerated Technological Change in the Western Middle Ages?" in A. C. Crombie, ed., *Scientific Change* (New York: Basic Books, 1963a), p. 32.

[141]Joseph Needham, "Poverties and Triumphs of Chinese Scientific Tradition," in Crombie, ed., *Scientific Change* (New York: Basic Books, 1963b), 139. Italics added.

[142]See Boies Penrose, *Travel and Discovery in the Renaissance, 1420–1620* (Cambridge, Massachusetts: Harvard Univ. Press, 1952), 269–270.

[143]See Joseph Needham, "The Chinese Contributions to Vessel Control," *Scientia*, **XCVI,** 99, May 1961, 165–167. When Needham gave this paper at the Fifth International Colloquium on Maritime History, he was specifically queried on the possibility of independent invention by W. G. L. Randles. He responded by affirming his doubts, although, as he said, it is inherently difficult to demonstrate a negative. See "Discussion de la communication de M.

Needham," in Joseph Needham, "Les contributions chinoises á l'art de gouverner les navires," *Colloque internationale d'histoire maritime*, 5e, Lisbonne, 1960 (Paris, 1966), 129–131.

[144]"See William Willetts, "The Maritime Adventures of the Great Eunuch Ho," in Colin Jack Hinton, ed., *Papers on Early South-East Asian History* (Singapore: Journal of Southeast Asian History, 1964), 38.

[145]"In ± 1405, the eunuch admiral Cheng Ho left with a fleet of 63 ocean-going junks who visited many parts of the south seas. . . . During the next 30 years seven such expeditions set forth, returning each time with abundant information concerning geography and sea routes as well as large quantities of the produce of the isles and India. . . . The reasons for these expeditions are not known; they may have been intended to counterbalance the foreign trade which had dried up over the land routes, or to increase the grandeur of the imperial court, or even, as the official annals said, to seek out the emperor's predecessor and nephew (who, in fact, had disappeared underground as a Buddhist monk and was found many years later in a succeeding regime). In any case they stopped as suddenly as they began, again for reasons which are now obscure. Whether or not some feud between the eunuchs and the Confucian bureaucrats was involved, the upshot was that the commerce of the Indian Ocean was left to the Arabs and the Portuguese." Joseph Needham, *Science and Civilization in China*, **I** (London and New York: Cambridge Univ. Press, 1954), 143–144.

[146]T'ien-Tsê Chang, *Sino-Portuguese Trade From 1514 to 1644* (Leiden, Netherlands: Brill, 1934), 30.

[147]"The question may be asked, what were the practical results of these amazing expeditions, in which hundreds of ocean-going junks and several tens of thousands of men were used? The short answer would be, absolutely none. The Ming Chinese were not empire-builders. Their political pundits had no conception of the horrors of *realpolitik* inseparable from a colonial regime. They had no sense of mission, no idea of *sturm and drang*. Theoretically the Son of Heaven ruled the whole world, *t'ien hsia*, 'all under heaven,' and his envoys considered it enough to show themselves to the non-descript barbarians on the fringes of the civilized world, in order to usher in a millennium activated by the serene presence of the Son of Heaven upon the Throne." Willetts, *Papers on Early South-east Asian History*, pp. 30–31.

[148]*Ibid*., p. 37.

[149]*Ibid*., p. 38.

[150]See G. F. Hudson, *Europe and China* (London: Arnold, 1931), 197. May it also have been the result of a population shift northward? "This regional analysis shows that the loss of population by Southern China [during the Ming dynasty] (12 millions, excluding Nanking) was almost exactly balanced by the gain in Northern China (9 million) and the West and South-West (3 million)." Otto B. van der Sprenkel, "Population Statistics of Ming China," *Bulletin of the SOAS*, **XV,** Part 2, 1953, 306.

[151]"The work of fortifying the coast between the Yangtze and

Pearl rivers was compared by contemporary Chinese historians to the building of the Great Wall against the Tartar invaders from the north. This was an obvious exaggeration, but the necessity of maintaining costly coast defenses to cope with these chronic incursions was undoubtedly a severe strain on the Ming exchequer and may . . . have contributed to the abandonment of the great Chinese maritime expeditions to the Indian Ocean [p. 126]." C. R. Boxer, *The Christian Century in Japan* (Berkeley: Univ. of California Press, 1967), 7.

George Sansom, looking at this phenomenon from the Japanese end, sees a suggestive European parallel. "There is no doubt that both China and Korea suffered from the depredations of the Wako. . . . The fault was partly that of the Chinese, for they were opposed to foreign commerce, whereas the Japanese authorities would have been glad to promote legitimate trade. But these were also the reasons why the Bakufu [Japanese central authorities] was reluctant to go to extremes in suppressing piracy. It was not entirely convinced of the peaceful intentions of the Chinese, and looked upon the pirate chiefs probably as Queen Elizabeth looked upon Sir Francis Drake—as a freebooter or a naval captain according to circumstances. Moreover, action against the pirates depended upon the Bakufu's control over the Western warlords, and before 1400 Yoshimitsu was not yet firmly established in power." *A History of Japan:* Vol. 11. *1334–1615* (Stanford, California: Stanford Univ. Press, 1961), 177–178.

[152]"[One] is struck by the significant part played by the Chinese in the [Indonesian] archipelago in the 14th century. . . . As the hegemony of trade in this ocean passed into the hands of the Moslems, the Chinese ships began to disappear. There is probably a connection here. . . ." M. A. Meilink-Roelofsz, *Asian Trade and European Influence in the Indonesian Archipelago between 1500 and about 1630* (The Hague: Nijhoff, 1962), 25, 74.

[153]See R. Servoise, "Les relations entre la Chine et l'Afrique au XVe siècle," *Le mois en Afrique*, No. 6, juin 1966, 30-45.

[154]Chaunu, *L'expansion européenne*, p. 335.

[155]*Ibid.*, p. 336.

[156]*Ibid.*, pp. 338–339.

[157]The Ming period, once the power of the Mongols was broken, seems to have witnessed a strong reaction against these compressive conditions on the part of the over-populated south." *Bulletin of the SOAS*, **XV,** Van der Sprenkel, p. 308. Note that van der Sprenkel, in contrast to Hudson, gives the *declining* menace of the Mongols as the explanation for northward shift of emphasis.

[158]In the glossary to Max Weber, *The Religion of China* (New York: Free Press, 1951), Hans Gerth writes: "Prebend: Right of an officeholder to yield from state or church lands or from other public income. Weber terms such office-holders 'prebendiaries'. A political social system based upon a staff of prebendiaries Weber calls 'prebendalism.' [p. 305]." Eric Wolf discusses the differences of a patrimonial (or "feudal") domain and a prebendal domain from the perspective of its meaning for the peasant in *Peasants* (Englewood

Cliffs, New Jersey: Prentice-Hall, 1966), 50–52.

[159]Weber, *Religion of India*. pp. 70–71.

[160]Joseph R. Levenson, ed., *European Expansion and the Counter-Expansion of Asia, 1300–1600* (Englewood Cliffs, New Jersey: Prentice-Hall, 1967), 131–132.

[161]Weber, *Religion of China*, pp. 61–62. Italics added.

[162]Owen Lattimore shows how just such a tribute relationship of Manchuria to Ming China worked in the sixteenth century: "In the period of Ming decline the 'tribute missions' received at court became a method of taking advantage of the Chinese. The 'tribute-bearers' came with retinues running into hundreds, at the expense of the Chinese authorities, which inflated their political importance. At the same time, they brought 'non-tribute' goods for trade, which cut the profits of the Chinese frontier traders." *Inner Asian Frontiers of China*, 2nd edition (Irvington-on-Hudson, New York: Capitol Publishing Co. and American Geographical Society, 1940), 124. Compare this self-defeating political arrangement to the frank colonialism Portugal and other European countries practiced on the overseas barbarians, what Weber called "booty capitalism." *Ibid*., p. 135.

[163]Cipolla, *Guns and Sails*, p. 117.

[164] William Theodore de Bary, ed., "Introduction," in *Self and Society in Ming Thought* (New York: Columbia Univ. Press, 1970), 24. He develops this theme further in his essay in this volume entitled "Individualism and Humanism in Late Ming Thought": "A type of individualistic thought with strikingly modern features did arise, in conjunction with larger social and cultural forces, out of a liberal and humanitarian movement within the Wang Yangming school in the sixteenth century. Thus Confucianism, though the dominant tradition and, to modern eyes, an authoritarian system, proved capable of fulfilling somewhat the same function as . . . medieval Christianity in the rise of Western individualism [p. 233]."

[165]"The insurrection which chased the Mongol dynasty of the Yuan from the throne in 1368 and the coining to power of the Ming were Chinese national reactions against the barbarians." Roland Mousnier, *Les XVIe et XVIIe siècles*, Vol. IV of *Histoire Générale des Civilisations* (Paris: Presses Universitaires de France, 1954), 520.

[166]Ibid., pp. 527–528