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V

On the Comparative Treatment of Economic Institutions in Antiquity with Illustrations from Athens, Mycenae, and Alalakh

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Tools of Analysis

A broad indication of the different ways in which we find the economic process institutionalized in society may, eventually, throw some light on the role of the economy in the territorial spread of the cultures that may or may not accompany the process of social growth. No frontal attack on the problem of size appears as yet promising.

Two features of the economy have been selected for inquiry: the relations between the economic and the political system in society and the manner in which the uses of money are instituted, primarily in palace economies. In either case some random reflections on territorial expansion seem possible, yet the main emphasis must lie not on these reflections but rather on the conceptual tools employed in the comparative treatment of economies as we meet them in history.

The economy, then, in our reading, is an institutionalized process,[1] a sequence of functional movements that are embedded in social relations. The function of the movements is to supply a group of individuals with a flow of material goods; the social relations in which the process is embedded invest it with a measure of unity and stability. The movements are either locational or appropriational or both. That is, the things move either in relation to other things, which movements include production and transportation, or in relation to the persons who need them or dispose of them.

Process and institutions together form the economy. Some students stress the material resources and equipment—the ecology and technology—which make up the process; others, like myself, prefer to point to the institutions through which the economy is organized.

1 See *Trade and Market in the Early Empires,* edited by Karl Polanyi, Conrad M. Arensberg, and Harry W. Pearson (Glencoe, Illinois, 1957).

Again, in inquiring into the institutions one can choose between values and motives on the one hand and physical operations on the other, either of which can be regarded as linking the social relations with the process. Perhaps because I happen to be more familiar with the institutional and operational aspect of man's livelihood, I prefer to deal with the economy primarily as a matter of organization and to define organization in terms of the operations characteristic of the working of the institutions.

I am conscious of the inherent limitations of such a treatment particularly from the point of view of general sociology. For the process is embedded not in "economic" institutions alone—a matter of degree, anyway—but in political and religious ones as well; physical operations do not exhaust the range of relevant human behavior, either. But it helps roughly to disentangle the economy from other subsystems in society, such as the political and the religious, and thereby make reasonably sure that we know what we mean when we so confidently talk about "the economy."

In the first approximation, economies form a going concern mainly by virtue of a few patterns of integration, namely reciprocity, redistribution, and exchange. A historically important fourth pattern might be seen in householding, that is, the manner in which a peasant economy or a manorial estate is run, though formally this is actually redistribution on a smaller scale. By itself, or together with the others, each of the three patterns is capable of integrating the economy, ensuring its stability and unity. Whether or not integration raises technological problems, mainly of physical communication, or rather organizational problems such as the merging of smaller groups into bigger ones, size may be the essence of the matter; typically such merging occurs whenever peasant economies link up to form a larger society.

In early societies integration happens as a rule through the redistribution of goods from a center or through reciprocation between the corresponding members of symmetrical groups. The goods may be appropriated for distribution by peasant or chief, by temple or palace, by lord or village headman through physical storage or through the mere collecting of rights of disposal of the goods. Both the deliveries to and the awards from the center are largely assessed as a function of a person's status, and the actual allocation is made through administrative decision. Reciprocity, as between kin or neighborhood groups, may link individual partners or comprise a whole sequence of symmetrical situations "in turn." Numerous combinations of reciprocity and redistribution occur. A third way of integrating the economy is by exchange or barter. To have an integrative effect, this pattern needs the instrumentality of price-making markets, as in nineteenth-century society where a supply-demand price mechanism produced integrative prices. The mere presence of market elements or even of nonprice-making markets in a peasants' and craftsmen's society does not produce an exchange-patterned economy.

No "stages theory" is here implied; a pattern may appear, disappear, and recur again at a later phase of the society's growth. Admittedly, exchange resulting in an integrative effect only appeared with the self-regulating system of competitive markets inaugurated in the nineteenth century. Where prices are "set," "fixed," or otherwise administered, they are produced not by the market but by administrative action. Redistribution was regularly practiced in primitive tribes at the hunting and collecting stage; eventually it became a function of archaic administration, while in modern times it is a feature of industrial planned economies. Reciprocity was widespread among kinship-organized societies and still survives as the *raison d'être* of Christmas trade of Western cultures. Only integration through price-making markets, as we have said, was unknown until recent times.

These patterns do not—and this should be stressed—supply us with a classification of economic systems as a whole; rather the coexistence of patterns, notably of reciprocity and redistribution, is common. Also markets which do not integrate the economy may fit into either pattern. And any of the patterns may predominate, may reflect the movements through which land, labor, and the production and distribution of food are merged into the economy. But other patterns may obtain alongside the dominant one in the various sectors of the economy and at varying levels of its organization.

In the second approximation, patterns of integration are necessarily accompanied by the institutions through which the economy is organized. No complete theory of economic institutions is here intended. Some institutions are inherent in the pattern itself, such as a symmetrical structure for reciprocity or a degree of centralization for redistribution or price-making markets for integration through exchange. And already at this level institutional variants offer, for instance, temple or palace as a redistributive center. In addition, the patterns are as a rule accompanied by characteristic institutions, such as the drawing of lots for the division of booty or for the assignment of land or the allocation of burdens "in turn" under a reciprocity pattern. Storage arrangements, rations, and equivalents go with redistributive patterns. Less important institutional traits, of which there are many variants, tend structurally to adjust to these "characteristic" ones.

It must be apparent that just as the economy forms only a part of society, so the economy itself consists of differently patterned parts, each of which may have its characteristic institutions combined with a variety of traits.

Hence there is need for circumspection before one attempts the task of mapping the changing place of concrete economies in actual societies. One should distinguish between the society as a whole, in which the economic, political, and religious spheres meet, the economic sphere itself, which sometimes combines several patterns of integration, the institutions characteristic of those patterns, and, finally, variants of other institutional traits. The inquiry may thus come closer to the attainment of more ambitious aims, such as systematically relating the territorial spread of cultures to the economy. At any rate, it should point to some of the potentialities—and limitations—of the economic historian at the present stage of our knowledge.

The two problem groups that follow will serve to illustrate what we call the institutional analysis of economics. To simplify matters, we have selected examples from the economic history of ancient Greece, with references to Alalakh. The first group connects subsystem to subsystem, economy to polity; the second treats of palace economies from the angle of money uses.

Classical Athens offers an example of interaction between economy and polity. By the beginning of the fifth century the agora, in the sense of a market place, had become part of the economic organization of the Athenian polis, as magistracies and other offices and bodies were parts of her political constitution. Both the Athenian city-state's strength of resistence in an emergency and its incapacity to expand territorially sprang from this conjunction of agora and polis government. The agora was not, as our market system is, an open supply-demand price mechanism disciplined through competition and interdependence with other markets. It was (in modern terms) an artificial construct of limited access and dependent for supply, rates of currency, and price control upon the sanctions provided by the polity. The power of the democratic jurisdiction formed a frame of authority, which alone enabled the agora to function but at the same time marred the chances of its expansion by limiting its scope to the confines of the polis. And, conversely, the agora was the mainstay of the democracy, which was the driving force of territorial expansion, yet the self-same agora time and again frustrated such endeavors through its jealous nativism. These mutually restrictive features of economic structure and polis constitution accounted for many of the vicissitudes of the Hellenistic polis. Neither the polis as such nor its agora had aptitude for growth. Hellenism was essentially polis-culture of empire size gradually spreading over the Near East by virtue of the "barbarian" government of the countryside, the *chora* (see below).

The palace economies of Mycenae and Alalakh are relatively new additions to our knowledge. For a comparative study of antiquity, the mesh of our patterns offers no more than a rough orientation. In order to study institutional structures we require a finer texture. At least one further determinant should be added to the economy, namely the dimension of quantitativity. Statements that ignore the quantitative connotation of the movements that make up the economic process are seriously inadequate. Thus the development of the monetary sphere, in the widest sense, should offer a heuristic avenue to the analysis of economic institutions in early societies. A "monetary" approach of this kind will be attempted here in the comparison of Mycenae and Alalakh. On such a sharpening of our conceptual tools hinges, as will appear, the separation of submonetary devices from money proper, in Mycenae (see pp. 340–46), as well as the differentiation of western Asian palace economies in terms of money uses, as shown by Alalakh (see pp. 346–50).

Economy and Polity: Agora, Polis, Chora

The Athenian agora may well have been the earliest market in the West which might be called a "city market." Yet such use of the term is slightly anachronistic. For the agora was historically not primarily a market place, but a site for meetings, and the Greek polis was not a city in the modern sense, but a state.

First, the agora. From about the end of the sixth century Attica apparently possessed in the town of Athens some kind of market place where food was retailed. Previously only Sardis, the capital of

Lydia, seems to have been credited with such an open space, which was crossed by the gold-bearing Pactolus. Gold dust presumably was employed there for the purchase of prepared foods, while coins of electron were used for trade. In Athens, where gold was absent, small denominations of silver coins served the purpose of retailing. Without some such monetary device, distribution of food throughout the market would not have been practicable. Hot meals offered in the inn, cuts of tepid meat and snacks to consume in the alley, foodstuffs to take home for the kitchen were the province of the *kapelos* (of authentically Lydian origin), to whose lowly figure was owed much of the famous ease of Athenian life. In the wake of the downfall of the tyrannis and its palace economy the agora eventually filled up with a variety of figures, male and female, selling mostly their own produce, self-raised or self-made. They rarely acted as middlemen, with the important exception of the grain trade, in which wheat imports were sold by supervised retailers.

Second, the polis. Athens the town had no resemblance to our medieval towns with their privileged citizenry lording it over the *banlieue*. True, the acropolis was an impregnable rock that overawed the flatland for a full day's ride. But the town of Athens had nevertheless no territory of its own, no legal or constitutional status, no juridical personality, no autonomy. Its agora could be put out of bounds to the unfriendly neighbor, but neither voters nor officeholders derived rights from their domicile in Athens. The privilege of keeping a stall in the agora was probably most of the time reserved for citizens, that is, citizens of Attica or Athens, not persons residing in Athens. Hence our hesitation to speak of the agora as a city market.

In what manner, then, did the agora assist the Athenian city-state in its political rise, while at the same time hampering its territorial expansion? And, conversely, how far was the polis constitution favorable to the growth of the market habit, while forming an obstacle to its expansion into a market system reaching beyond the state boundaries?

The agora, even from its beginnings, was an asset to the state. Solon's reforms would hardly have prevented debt bondage from becoming a normal part of the labor structure but for the timely emergence of the market habit. The edge of debt sharpened by the recent spread of currency was blunted by the market. There the farmer could turn some of his produce into money, and the citizen-artisan could find food to keep body and soul together by picking up a job away from home. The chance of selling part of his crop in the market would save the indigent peasant from having to work off his debt; the possibility of getting food at the cookshop would rescue him from bondage to a neighbor to whom he otherwise would have to turn for bread in late winter. The market relieved the pressure of unemployment once foreign beaches began to be closed to overseas colonists; it helped to carry the floating population which provided the nerve of the navy in wartime. Thus the domestic peace for which Attica was famed and which made her eventually feared abroad owed much to the agora.

But the reverse was true as well. The market, which bolstered domestic solidarity and stimulated the forces of a maritime democracy, was also a source of parochialism. Market-fostered popular feeling, which defeated on the battle field the organizing capacity of the redistributive empire of Persia and acquired a thalassocracy for Attica, was haunted by a xenophobia which denied even the semblance of equity to allies and associates and thereby undermined the military strength of that very empire which patriotism had helped create. Yet nativism was inborn to the agora. To keep a stall in the agora was just as much a citizen's prerogative as was his claim to jury fees. The market place offered modest but easy earnings to the poorer part of a necessarily small citizenry, a feature that was to prove a fateful handicap to a polis way of life in its attempt to conquer the Oriental monarchies.

Let us now view the problem from the opposite angle and regard the growth of the agora as a function of the polity. Again, the two subsystems were out of step.

The agora formed part of the popular platform and was favored by the democratic faction. Cimon, the aristocratic leader, preferred to pamper the conservative voter by offering the genteel poor modest hospitality at his table. Pericles, as the chief of the democratic party, supported the novel market habit; an Alcmaeonid himself, he gave it a fashionable coloring by personally shopping for his large and distinguished household. Democratic policies included daily fees paid from the treasury to citizens for jury and other public services, so that no one would be prevented by poverty from availing himself of his rights and performing his duties as a citizen. This policy fitted well with the practice of having food retailed cheaply in the market. The navy's popularity with the democratic faction reinforced the demand for an opportunity of spending oarsmen's pay on ready-made provisions. Plutarch's account of Pericles' and Cimon's contention spotlights the agoraphil line of policy followed by the friends and partisans of democracy. By the first decade of the Peloponnesian War this trend was so popular that even Aristophanes—assuredly no democrat—had to moderate his sallies against the market. After the war, polis management of this meeting place of commerce became pervasive. The currency was closely supervised; contact with the Piraeus was under check and control; prices were watched; retailers' profit was limited; the time and place of dealing were set out publicly; grain continued altogether under administrative control; the activity of the money-changer, the trapezite slave squatting behind his bench, was closely policed. Credit transactions in regard to foreign trade had to conform to rule and regulation. The resident alien was still barred from the acquisition of land and consequently from lending on urban property. Implicit in all this was the principle underlying the existence of the agora: he who appeared in the market must obey the law without hesitancy or reservation. There was no room here for our modern concept of the "laws of the market" as contrasted to the "laws on the statute book." Nor was there any sign of the medieval distinction between the "law of merchants" (*ius mercatorum*) and the "laws of the market place" (*ius fori*). Not the merchant's privileges but the authorities' ordinances were binding. The sanction of the market place was engraved on the heart of the citizen, a word that spelt loyalty to the common gods, not to the invisible god of the Persians nor even to the gods of the Hellenes, whose seat was on high Olympus, but to the local deity whose statue stood in the temple and whose aura maintained the identity of the polis. The boundaries of the market were as immovable as the gods.

It is worthy of notice that these results did not come about through the economic effects of the agora on the standard of life. Only indirectly—through its social effects—did the positive contributions of the agora and, perhaps even more, its negative ones affect the fate of the polis. Material welfare was but slightly influenced by its working. Neither the intense patriotism nor the monopolistic exclusiveness generated in the populace can be said to have greatly added to, or detracted from, the resources or supplies of the country. The market-induced attitudes were felt directly in the life of the community as forces of *anomie* as well as of social cohesion, the balance of which may well have determined the course of national history without any significant change in the national product having been registered.

As a wealth-creating organ the agora was not a determining factor of growth. Producers' goods were not on sale; metals, marble, timber, pitch, flax were not among the commodities available; wholesaling was barred; deals in land were made indoors and were announced by the public herald. Farmers and craftsmen as such were the sellers; the general public with their small daily needs were the buyers. Most manufactures bypassed the market. Many were designed for use in public works, while others went through private contractors to the armament industries or directly to the manorial hall or the exporter, as did the big jars for oil. Bankers were not engaged in financing market purchases, and no documents were issued to testify to such deals. Business was in cash. The rich man had his money carried by his servant; the poor who had no cash turned even for small sums to Theophrastus' petty usurer, who made the rounds collecting his mites of interest. Payment for market purchases was not to be postponed. Even neighboring markets were unconnected. There was no arbitrage. When Cleomenes of Naukratis began to practice it in the interest of the Egyptian state, an outcry was raised in Athens.

The far-reaching consequences of the agora were, therefore, in the social and political field. Together with the introduction of coinage, it worked for equality of status and a self-reliant type of personality. The husbandman did not have to tremble for fear his landed creditor would auction him off to foreign parts as a defaulter. Similarly to Berber markets in Northwest Africa and the multitudes of small markets in the central and western Sudan,[2] the market place was primarily a social and political institution providing facilities for the people's livelihood.

The market mechanism as such did not create the well-known "economic" obstacles to welfare which are summed up under protectionism. Domestic producers apparently did not insist on tariffs; no farmer's pressure for higher prices is on record; foreign competition only seldom aroused hard feelings, thus forcing the government's hands in its dealings with allies, and no awkward effects of a competitive price mechanism interfered with national policies. If the demands of businessmen proved a hurdle to a successful empire policy, it was less on account of monopolists' interests than those of a majority of the small men. For opposition rallied at the mere threat of

[2] See Rosemary Arnold, "A port of trade: Whydah on the Guinea coast," and Francisco Benet, "Explosive markets: The Berber highlands," *Trade and Markets in the Early Empires*, pp. 154–75 and 188–213 respectively.

an increase in the population, particularly if the threat stemmed from a policy of enfranchisement. Parochialism would paralyze any welcoming gesture to immigrants and freeze any influx of new citizens, even from the ranks of the allies. Not market forces, but deep-seated fears of ethnic and religious dilution seem to have been at work. Herodotus, Thucydides, Plato, Aristotle, the pseudo-Aristotelian *Oeconomica One*—none of them elaborate on the economic advantages or disadvantages of the agora. Even the Xenophontian praise of Athenian affluence refers to the Piraeus rather than to the agora. Plutarch, almost five hundred years later, still dramatized the role of the agora in Athenian politics without so much as mentioning the part it played in the economy. The Funeral Oration, an emphatically Athenian pronouncement, takes the agora for granted, as do the Viennese their coffeehouses. Pericles obviously included the agora among the scenes of liberal thought and social amenity and of that blossoming of a free and easy way of life that earned Attica the name of the "Education of Greece." Antedating the Funeral Oration, Herodotus in his history of the Persian Wars (i. 153) prophetically elevated the uncommercial understanding of the agora into a criterion of the enlightened mind. And even Cyrus the Great, his hero among "barbarians," fell down on the test.

The division that eventually established itself between the Greek and the Persian parts of the Empire was to Rostovtzeff's penetrating mind among the sources of the disturbance in the Successor states of Alexander the Great. And he added this enlightening comment:

> The main difficulty with which the Successors were faced did not lie in their Oriental territories. There they had inherited a solid and reliable system of administration, taxation, and economic organization from Alexander, who in his turn had taken it over, at least in part, from the Persian kings. *Their real difficulty lay with their Greek subjects in the East.* [Italics mine.][3]

The *poleis* of Asia Minor were dissatisfied with their rigorous treatment at the hands of Lysimachus and Ptolemy and even with the much more liberal regimes of Antigonus and Demetrius. Eternally struggling to regain their freedoms "the leading Greek cities shifted their support from one pretender to another, so that stability in this respect was never attained." In vain did the Successors create or recreate federations or leagues of cities as "a device directed against the isolation, political, social, and economic, of the single cities." The

[3] M. Rostovtzeff, *Social & Economic History of the Hellenistic World* (Oxford, 1941) I 152 f.

same is true of the synoecisms, "the attempts of many of the Successors to merge several small cities in a larger, richer, and more reliable State. . . . Synoecism was carried out on a very large scale by Lysimachus in the case of Ephesus, Colophon, and Lebedus." The synoecisms, we assume, were carried out particularly in order to ease the economic and financial plight of "small cities with small territories and a restricted population" overloaded with debt and burdening their own people with liturgics and compulsory loans—permanent sources of civil wars, lawsuits, and wars with neighbors.

The incurable particularism of these minute subdivisions "endeavouring to live in economic self-sufficiency" was to Rostovtzeff the canker of the polis system:

> The rulers believed that one of the main reasons why the cities were poor and in distress was that there were too many of them. . . . They therefore tried to convince the cities of the merits of their remedy and to induce them of their own will and decision to carry out a union with their neighbours. In this they mostly failed, and thereupon *had recourse to compulsion, under the cloak of benevolent guidance.* [Italics mine.]

Only through compulsion, then, could the polis be induced to give up its individuality. . . . Nevertheless Rostovtzeff put the blame for what he regarded as the unpardonable political and economic non-co-operativeness of the Greek coastal strip in Asia Minor squarely on the polis.

This judgment sprang in our view from a one-sided approach to the economic nature of the polis. The agora, which today is falsely regarded as the germ of an institution capable of linking up with similar entities to form a market system of limitless scope, was in its origin nothing of the sort. It was a creation of the polis which territorially walled it in. It was not born out of random transactions of unattached individuals whose collective attitudes eventually merged in the market as an institution in its own rights. Such a germination of markets, as anthropologists and sociologists have taught us, is unhistorical. Rather, markets were the result of deliberate policies of a kind of authority that even in bush and jungle enters into the shaping of all structured human behavior. To expect the polis to relinquish its individuality implies among other things the abandoning of the agora, which was its organ of breathing and nutrition. On the other hand, to expect the agora to expand in a way that some fifteen centuries later the local market was capable of would imply that an institution can transcend its given structural limitations.

Rostovtzeff himself may have felt this contradiction, for he introduced his argument with a well-nigh invalidating admission. "The Successors," he wrote, "tried in various ways to get rid of . . . the particularly unsound and mischievous" elements in the polis tradition, "*though they never attempted to change the type of economic system established in the Greek city-states.*" (Italics mine.)[4] Yet short of that nothing could avail.

This concludes our discussion of economy and polity in classical Greece. In justice to two eminent minds who, separated by two millenniums, dealt in their own ways with the subject of polis and *chora*, it is meet to remark on the depths of this still unresolved controversy.

Rostovtzeff, in his appreciation of the pseudo-Aristotelian *Oeconomica One* summed up:

> . . . at this time two types of economic and political organization balanced each other in the ancient world; that of the Oriental monarchies, represented by Persia, and that of the Greek city-states. Each had behind it a long and glorious evolution, longer in the East, shorter in the West. . . . *Each endeavoured to extend its form of economic life to the rest of the ancient world.* [Italics mine.][5]

Rostovtzeff, it would appear, was at this point very near to penetrating the historical issue of polis and *chora.*

Aristotle's encomium of the small polis has been under a shadow in modern times. He appeared to lavish praise on the irretrievable past at the very dawn of the great empires. But the polis, far from fading out, as modern critics appear to postulate, persisted for several centuries in the expanding Hellenistic universe, unchanged and, indeed, unchangeable as Aristotle had upheld with so much conviction, while the ancient empires readjusted their own methods at the hands of the new Hellenic rulers who continued to pour forth from the training centers of the polis.

If Aristotle failed to give the *chora* its due, he at least did not underrate the staying power of the classical polis, provided it did not grow in size.

Palace Economies from the Angle of Money Uses

Submonetary Devices in Mycenae

Michael Ventris, the decipherer of Linear B, has asserted the absence of money in the palace economy of Mycenaean Greece.[6] The

[4] See *ibid.* p. 154. [5] *Ibid.* p. 75.

[6] See Michael Ventris and John Chadwick, *Documents in Mycenaean Greek* (Cambridge, 1956) p. 198.

term "Mycenaean Greece" derives from the earliest excavation of Mycenae and comprises that site and Pylos, in the Peloponnese, together with Knossos, in Crete.

Mycenae, as we shall briefly call all of Mycenaean Greece, flourished in the thirteenth century. Its palace economy was of an extreme type. For it may well be the only case on record in which a literate community eschewed the employment of money for accountancy. Mycenae is, then, of singular interest to the student of early monetary institutions. In the absence of "anything approaching currency,"[7] the actual means of accountancy employed in the Mycenaean palace economy may offer a clue to a very early phase in the development of money.

The economic historian of antiquity cannot make use of the concepts of money, price, etc. inherited from nineteenth-century market economies without a considerable refinement of these terms. "Money," it is suggested, should be defined as "fungible things in definite uses, namely payment, standard, and exchange," while "price" should be replaced by the broader term "equivalency," which transcends markets.

Operational definitions of money take their start from a particular use to which fungibles may be put. Under Roman Law, *res fungibiles* are things *quae numero, pondere ac mensura consistunt*. In terms maybe more acceptable to the economist, they are durable objects that are quantifiable, whether by counting or by measuring. The payment, standard, and exchange uses of such objects are defined in a manner which avoids any implicit concept of money creeping into the formulations. This requires *sociologically* defined situations in which the fungible objects are put to any one of those three uses in an *operationally* defined fashion. "Payment" is defined as a handing-over of fungibles with the effect of ending an obligation (always on the assumption that more than one kind of obligation can be ended by the handing-over of one kind of fungible). In their "standard" use fungibles serve as numerical referents; two different kinds of fungibles, like apples and pears, that are "tagged" to the standard can then be added up. In their "exchange" use fungibles are handled as middle terms (B) in indirect exchange, where C is acquired for A through the medium of B. "Being under an obligation," "adding up apples and pears," and "exchanging indirectly" are thus sociologically defined situations, while the manipulations of "hand-

[7] *Ibid.*

ing over," "referring to" or "tagging," and "exchanging twice over" are operationally defined. To state that money was absent in Mycenae strictly means that none of the staples were handled in a situation and manner that would amount to their use as payment, standard, or exchange. Not even metaphorically, as in regard to the attractive brides of the epics, are cattle named as a standard of appreciation in the Mycenaean tablets. Apart from a list of small weights of gold, the precious metals are hardly mentioned, though small uniform objects of gold similar to Egyptian units of treasure were found in the Mycenaean Acropolis. Silver—the term *chrysos* we are told is of Semitic derivation—hardly occurs in the tablets at all. Bronze is repeatedly mentioned as a raw material for weapons weighed out to the smiths from the palace but otherwise occurs only once and then not in a valuational context; prestige goods such as tripods serving as elite tool-money in the epics are absent in our accounts, as are also ornamental shells or beads. As to staples more commonly employed as money, such as barley in Sumer and Babylon or cacao in pre-Conquest Mexico, Ventris' unqualified negative settles the point. On the face of it, all this is surprising indeed. Yet its full implications can be gauged only if the scope of the accountancy is considered.

The authentic core of the Mycenaean economy was the palace household with its storage rooms and its administration which listed personnel, land-ownings, and small cattle, assessed deliveries in wheat or barley, oil, olives, figs, and a number of other staples (largely unidentified), and handed out rations. The rest is conjectural: Homer's nine towns that belonged to the king of Pylos have been found, surrounded by a considerable number of villages with their common land and peasant holdings. There were slaves, a class of dependent laborers, also soldiers and oarsmen, who were sometimes recipients of rations, which, however, mostly went to women and children. Manufactures were carried on by craftsmen and artisans, many belonging to the palace and others only supplied with raw materials from there. The products may have been partly employed in trading for the palace. Yet the outstanding fact about the inventory and the accounts is and remains the complete absence of money. One kind of goods can never be equated with, or substituted for, an amount of goods of a different kind. Accounts were strictly separate for each kind.

But how, then, was the palace's administration maintained over an economy of the extent of a good-sized city-state? The answer lies in devices which up to a point could be substituted for money and thus make possible a staple finance which allowed an elementary form of taxation without the intervention of money.

Staple finance is the dealing with staples on a large scale, involving inventories and accountancy, for the purpose of budgeting, balancing, controlling, and checking. As a rule—and this must be clearly understood—staple finance requires the use of money. This comes about with the help of equivalencies that are set up between the staples and by the use of one or another of them as a standard which thereby acts as money. Staple finance is, then, always in kind, whether its accountancy makes use of money or not, but the absence of equivalencies necessarily reduces the handling of staples to a moneyless "finance." Only within one kind of staple is budgeting, balancing, control, and checking then possible. The vital operation of collecting goods at a center through the device of taxation is performed almost blindly. The accounts fail to show the total burden that is put on the contributing unit, whether individual or village. It is not possible to say how much its burden would be increased or diminished by changes made in any one kind. Neither is there a measure at hand by which to raise the taxes proportionately to an increase in population or to maintain equity in the burdens imposed on bigger and smaller communities.

A fairly obvious remedy, still on a submonetary level, obtains as long as the taxation in kind happens within an ecologically homogeneous region. A composite unit consisting always of the same main staples in definite unchangeable physical proportions can be there formed for purposes of taxation. Tax is then assessed according to the size of each village in multiples of this unit. The physical proportions which obtain between the goods in no way mean that the staples can be substituted one for another in those proportions and that the taxpayer is permitted to deliver one kind of staple instead of another. Nothing of the sort is involved. But the totaling of each kind of revenue is made much easier by the composite unit, as is the adjustment of the tax to changes in population. Moreover—and this should not be forgotten—some serious disadvantages of monetization are avoided. The chief requirement of a balance in kind is certainly that at any given moment rations and other obligations that are due are actually available in kind. But any equivalency that has been accepted as a standard may act as an inducement for the substitution of one staple for another, whether in delivery or in handing out, and thereby frustrate that basic requirement. Any assurance of "effective liquidity" would be gone. A composite tax unit avoids this danger.

Linear B, the script in which Mycenaean accountancy was done, shows proof of just such a device. In two cases we have explicit statements of the physical proportions in which the composite tax contained the staples. One is shown in the Pylos *Ma*-tablets:

> . . . A number of townships are put down for a contribution of six different commodities, mostly so far unidentified. The scale of the total contribution varies for each town, but the mutual proportions of the six commodities remain constant at 7:7:2:3:1½:150.[8]

The other occurs in the Knossos *Mc* tablets, which

> . . . contain lists of four commodities, one of which Evans identified as the horns of *agrimi* goats for making composite bows. Their amounts conform, with rather wider variations than on the Pylos *Ma*-tablets, to a ratio of 5:3:2:4.[9]

Yet, we repeat, nowhere is there an equivalency nor anything approaching a standard and, a fortiori, money.

A submonetary device acts in a purely operational fashion. Complex arithmetical results, which in the economic sphere are usually gained through calculations in monetary terms, appear to have been attained in early society by means of operational devices without intervention either of money or of reckoning. In the light of these considerations we shall try to penetrate further into the earliest history of money.

From times immemorial wheat has been distributed in the Indian village community[10] to the various claimants—tillers, craftsmen belonging to their respective castes, village officials, and, last but not least, the landlord and the prince—by the simple means of handing out grain from the heap in a certain sequence which combines portions of absolute amounts with a number of unit measures that go to each in turn. The traditional sequence is extremely intricate. Yet the method is of utmost simplicity. There is no need to know how many units the heap contains, nor to how many units each claimant has a right, nor how much he actually gets, for once the heap is gone such questions are rather pointless in view of the certainty that each received his due, neither more nor less. No money and no reckoning enter into the operation.

8 *Ibid.* p. 118. 9 *Ibid.* p. 119.

10 See Walter C. Neale, "Reciprocity and redistribution in the Indian village," in *Trade and Market in the Early Empires*, pp. 224–27.

Another submonetary device, this one regarding trade and very different from that of the grain heap, is indicated in passages from Ezekiel, chapter 27, and some 250 years later in Aristotle's *Politics.* The Old Testament prophet describes the many-sided foreign trade carried on by Tyre, Queen of the Seas, while Aristotle offers an analysis of the role played by monetary objects in long-distance trade. Ezekiel speaks of the traders as "reckoning" one another's goods in their own, while Aristotle says that money sets the limit and the pace to trading. They both appear to have had the same operational image before them. He who sells a cargo of grain from his ship's bottom, sheep from the corral, or oil from the store beneath the temple makes his ware come forth from the stock—unit by unit—and makes his trading partner move his goods at the same pace in the opposite direction—unit for unit—until one or the other stock is exhausted. Again the method could not be simpler. There is no need for any knowledge of how many units of goods either of them possesses, nor —if the rate happens not to be 1:1—of how many units of the other's goods each of them is supposed to receive, nor even of how many each actually receives, as long as the rate at which the operation progresses is the agreed one, since both necessarily have received the right amount at whatever moment the transaction is discontinued. And, as in the former case, neither money nor calculation is required.

These two instances of submonetary devices stem from very different situations. The one may have been common in pharaonic Egypt, with its storage economy, the other in the Fertile Crescent, which could not survive without extended long-distance trade. The one belongs in the realm of redistribution, the other in that of exchange.

Surely it is more than a coincidence that Linear B deviated from the original Linear A precisely at a point which mirrors in a striking fashion this type of difference. Linear A was a fairly primitive script of the Minoan-speaking natives of Crete (whose language is still unknown to us). The invading Greeks continued and developed it in Linear B, for the purpose of writing their own language and with a greater wealth of syllabic signs and ideograms. These changes were accompanied by just one other innovation, which can hardly be unconnected with the shifting from the native Minoan economy to that of the Greek newcomers, namely, a different notation of fractions. While Linear A used numerical notation akin to that of the Egyptians, Linear B changed to the wholly different system of fractional measures used exclusively in the Fertile Crescent. The numerical notation employed figures, such as 1/2, 1/4, 1/3, 1/6, 2/3, while the fractional measures carried names comparable with modern hundredweights, pounds, and ounces or bushels, gallons, quarts, and pints. The simultaneous change-over to the Greek language and to fractional measures happened about the middle of the second millennium B.C. at a time when redistribution of grain from pharaonic stores was dominant in Egypt, while between mainland Greece and western Asia trade was on the rise.[11] It seems obvious that the Greek seafarers were more interested in trade with the East than were the Minoan-speaking natives whose script they borrowed and whose economy resembled that of Egypt.

For an analytical study of early money the disentangling of fractional measures in Linear B by Emmett L. Bennett, Jr.,[12] should therefore prove a most promising beginning. It may, as he suggests, throw light on the early history of the Mycenaean Greeks. It certainly seems to prove that among the multiple origins of money we must also list manipulations of an elementary character which do not assume any arithmetical operations whatsoever, not even counting. The composite tax unit that is present in traces in the Mycenaean tablets seems to be such a submonetary device.

The Prestige Sphere in Staple Finance

The first to call for a comparison of Mycenae with the palace economies of West Asia was Michael Ventris himself. Again and again he named those of Sumer, Ur, Babylon, Assur, the Hittites, and Ugarit as parallel instances, not omitting Alalakh from the list. Our own survey of Alalakh, restricted to secondary sources, is in line with that suggestion. To our surprise we found that the differences between Mycenae and Alalakh in regard to money uses were at least as worthy of note as the general similarities between these two palace economies. Ventris naturally centered on the redistributive character common to palace economies, since the role of money had not yet moved into the over-all picture. Otherwise he could not but have remarked on the singularity of Mycenae, which knew not money (a fact which he was first to state), in contrast to the West Asian civilizations which employed money in more than one way.

Still another surprise was in store. Alalakh, which at first glance seemed monetized as much as its Mesopotamian partners, on a closer

11 See W. F. Albright, "Some Oriental glosses on the Homeric problem," *American Journal of Archaeology* LIV (1950) 162.

12 "Fractional quantities in Minoan bookkeeping," *American Journal of Archaeology* LIV 204–22.

view turned out to resemble moneyless Mycenae with its Greek culture and Minoan script, a thousand miles away, rather than its own eastern neighbors, whose cuneiform writing and Akkadian official language were first cousins to those of Alalakh.

Several questions arise. Was the original assumption of Alalakh's monetized accountancy well grounded? And, if not, how should the evidence which seemed to point in that direction be interpreted? Secondly, how, then, did its palace economy function? If Mycenae's hidden strength lay in submonetary devices, what lesson could be drawn from Alalakh?

Alalakh was a small but long-lived North Syrian kingdom, whose external relations from both the political and the economic angle were far from simple. Its economy and even more its finance reflected up to a point the complexity of these conditions.

Sir Leonard Woolley, the excavator of Alalakh, tells us how the city lay in that crowded stretch of the Fertile Crescent where in the second half of the second millennium B.C. the Hittite and Egyptian great powers met. The Hittites had once raided Babylon and eventually defeated Egypt in the battle of Kadesh, on the Orontes. A fourth power, Mitanni, with its mainly Hurrian population, was mostly wedged between the land of the Hittites and Babylonia. Alalakh was in the eighteenth century B.C. closely dependent upon the city of Aleppo. (In the fifteenth century Alalakh appeared as a semi-independent state.) The key to the over-all situation, in which Alalakh benefited from the balance between the great powers, was its geographical location. It formed the hinterland to the port of al-Mina, at the mouth of the Orontes, which together with its southern neighbor on the coast, the port of Ugarit, represented a vital access to the Mediterranean for the inland empires, whether Hittite, Babylonian, or Mitannian. Ugarit was, moreover, Egypt's maritime point of access to the caravan routes of the Fertile Crescent. This configuration resulted in a coastal area of relative peacefulness in the middle of the second millennium. The inland empires traditionally avoided conquest of the coast for fear that the "riches of the sea" would cease to flow through militarily occupied ports;[13] they preferred most of the time to exert but mild pressure in the direction of the sea, agreeing to keep the coast unoccupied and the caravan roads to it open or maybe even tacitly arranging for zones of influence. Such an arrangement might, for instance, have left southerly Ugarit

13 Cf. Anne M. Chapman, "Trade enclaves in Aztec and Maya civilizations," *Trade and Market in the Early Empires*, pp. 114–46.

in the Egyptian zone and northerly al-Mina in the Hittite zone, while allowing the eastern powers, Mitanni and Babylon, transit to either. Hence there may have been a network of international treaties by which a militarily weak and semidependent Alalakh secured its position in the midst of rival empires.

In regard to staple finance and trade the situation of Alalakh was, then, in all probability more complex than that of the Mycenaean cities of Pylos, Knossos, or Mycenae itself. Records show a flow of silver during the eighteenth century, large amounts of annual regional revenue collected in silver and passed on to higher administrative authorities; royal visits, betrothals, and other ceremonial occasions requiring a display of valuables; a drain on precious metals exerted by the temples; sums paid out as awards within the related ruling families; expenses of the local prince, particularly for raw materials to the "goldsmiths" (mostly dealing with silver); numerous other requirements of diplomacy and etiquette; purchases of land tracts comprising many villages in the course of adjustments involving exchanges of territory between contiguous administrations; caravan trade in transit, apparently requiring the military protection of nomadic chiefs. All these factors involved a movement of precious metals, whether acquired from foreign mine-owning rulers or indirectly through tributes and taxes. Such was the eighteenth-century picture to which our data refer.

We are here concerned, of course, not so much with the economic as with the financial aspect of Alalakh. According to D. J. Wiseman[14] the silver shekel was in the eighteenth century "a true currency" and "the principal medium of exchange." It seems very doubtful to us, however, that the level of accountancy in Alalakh was actually much higher than that of Mycenae, where money was altogether absent. Only in the prestige sphere, apparently, was silver widely employed for payment and certainly established as a standard of account. Outside that sphere accountancy was "in kind," each species of commodity being totaled separately (as in Mycenae). But the evidence seems to point to an intermediate state of affairs in which a prestige sphere, accounted in silver, formed the core of the staple finance while the subsistence sphere was accounted "in kind" without the intervention of money.

The sixty to seventy texts mentioning silver shekels would then

14 *The Alalakh Tablets* ("Occasional Publications of the British Institute of Archaeology at Ankara," No. 2 [London, 1953]) pp. 13–14.

appear to be satisfactorily explained by the concept of prestige goods. Silver, being treasure, was employed for uses that befit prestige goods, and expenditures made for such purposes were accounted in silver shekels. In other words, since the prestige sphere—sacral, royal, diplomatic, or relating to top-ranking civil and military bureaucracy—was the traditional field for the use of treasure, accountancy in silver shekels was the given form of bookkeeping in this sphere. The frequent mention of silver accounts merely proves the presence of important hoards of silver in the possession of king, temple, or treasury and of a rigorous accountancy in regard to it.

Admittedly, much is still unexplained. The use of silver shekels as money of account in the prestige sphere would seem to imply the existence of some silver equivalencies in that sphere. Yet, with a very few unimportant exceptions (see below), no equivalencies in silver are indicated, nor can such be implied. The main group of transfers of silver represents physical amounts of silver given either by weight or as objects for which the silver served as raw material and which are listed by weight in terms of shekels. There follow yearly totals of tribute amounting to over one thousand and over two thousand talents respectively, that is, several millions of shekels each. (These two items are from fifteenth-century tablets.) The third group comprises shares in the great king's booty, in royal inheritances, in awards between royal relatives; a fourth large group comprises plain gifts to gods, sovereigns, and other important persons, with no counterpart in evidence. The fifth group consists of the prices of villages and territories bought from neighboring sovereigns. In striking contrast to all these massive transfers of silver without any equivalencies, there are small conventional items such as tips to servants, perhaps according to their master's rank, a day's provisions to a messenger or the fodder for his mount, and similar trivial expenses. The origin of these not too impressive equivalencies is obscure. However, they seem to derive largely from the equivalency of 1 shekel of silver to 1 *PA* of grain, to which we shall return presently. Finally, there is a group of silver items which appear to belong not to the treasury but to the household of the palace itself. An amount of 10 shekels goes as a "loan" to craftsmen and artisans engaging them for lifelong service in the palace; employment in the palace seems to have conferred status, in a modest way. Distinctly larger loans of 20, 30, and 60 shekels apparently go to persons of higher status, distinguished by mention of their patronymic, "family," or sons' names. In still other cases either apprenticeship or supervision of training appears to be involved; in these "middle-class" loans there is a curious practice of lending a round sum plus 1, such as 21 or 31 shekels.

All this referred to silver accounts. But by far the largest number of items concerned staple finance in kind, such as deliveries to the palace and rations handed out from there. Nevertheless no equivalencies either for the various staples or for silver can be traced, with the following exceptions: 1 shekel of silver = 1 pot of best beer = 2 *parisi* of emmer[15] and 1 shekel of silver = 1 *PA* of grain. The latter is of course the oldest and best known equivalency of the cuneiform civilizations of Mesopotamia. In the light of what has been said above, it might not be too rash to infer that it expressed the status relations of two potential currencies, namely, a currency of the prestige sphere of the ruling classes (silver) and one of the subsistence sphere of the common people (grain).

Indeed, it seems well possible that, similarly to the *prestige* function of treasure, which introduces the silver shekel into all records of *prestige* activities, the fact of *status* (another building stone of archaic society) may enter into broad sectors of economic life as a quantifying factor. In Aristotle's time—fifteen centuries later—it was still possible to argue the just price in terms of the producer's status. Some quantitative facts of the Alalakh economy bear traces of such a connection. That both deliveries and rations reflect status seems to us in the nature of things. So may some equivalencies reflect social stratification, in a customary way.

In conclusion we might suggest the notion of a cultural continuum of monetary uses ranging from the zero point of Mycenae to the near-saturation point of the Mesopotamian empires of the middle of the first millennium. Palace economics, big and small, Asiatic, Egyptian, and European, may be found to have possessed organizations that were distinguished mainly by the manner in which the various monetary uses were institutionalized.[16]

15 *Ibid.* pp. 93 f., No. 324*b*.

16 Thoughts developed on the operational character of submonetary devices owe much to conversations with my colleagues Harry W. Pearson, Bennington College, and Paul Bohannan, Princeton University.

The survey of money uses was prepared with the assistance of Mr. Emmett Mulvaney, B.A., University of Manitoba.

The Mycenaean and Alalakh data were compiled with the help of Mrs. Mary S. Winch, B.Sc. (Econ.), London, England, as Research Assistant.

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ON THE COMPARATIVE TREATMENT OF ECONOMIC INSTITUTIONS IN ANTIQUITY WITH ILLUSTRATIONS FROM ATHENS, MYCENAE, AND ALALAKH

by Karl Polanyi

TOOLS OF ANALYSIS

A broad indication of the different ways in which we find the economic process institutionalized in society may, eventually, throw some light on the role of the economy in the territorial spread of the cultures that may or may not accompany the process of social growth. No frontal attack on the problem of size appears as yet promising.

Two features of the economy have been selected for inquiry: the relations between the economic and the political system in society and the manner in which the uses of money are instituted, primarily in palace economies. ~~In either case some random reflections on territorial expansion seem possible, yet~~ the main emphasis ~~must~~ lie~~s not on these reflections but rather~~ on the conceptual tools employed in the comparative treatment of economies as we meet them in history.

The economy, then, in our reading, is an institutionalized process 1/ - a sequence of functional movements that are embedded in social relations. The function of the movements is to supply a group of individuals with a flow of material goods; the social relations in which the process is embedded invest it with a measure of unity and stability. The movements are either locational or appropriational or both. That is, the things move either in relation to other things, which movements include production and transportation, or in relation to the persons who need them or dispose of them.

Process and institutions together form the economy. Some students stress the material resources and equipment - the ecology and technology - which make up the process; others, like myself, prefer to point to the institutions through which the economy is organized. Again, in inquiring into the institutions one can choose between values and motives on the one hand and physical operations on the other - either of which can be regarded as linking the social relations with the process. Perhaps because I happen to be more familiar with the institutional and operational aspect of man's livelihood, I prefer to deal with the economy primarily as a matter of organization and to define organization in terms of the operations characteristic of the working of the institutions.

I am conscious of the inherent limitations of such a treatment particularly from the point of view of general sociology. For the process is embedded not in "economic" institutions alone - a matter of degree, anyway - but in political and religious ones as well; nor do physical operations exhaust the range of relevant human behavior, either. But it helps roughly to disentangle the economy from other subsystems in society, such as the political and the religious, and thereby make reasonably sure that we know what we mean when we so confidently talk about "the economy."

In the first approximation, economies form a going concern mainly by virtue of a few patterns of integration, namely reciprocity, redistribution, and exchange. An historically important fourth pattern might be seen in householding, that is, the manner in which a peasant economy or a manorial estate is run, though formally this is actually redistribution on a smaller scale. By itself, or together with the others, each of the three patterns is capable of integrating the economy, ensuring its stability and unity. Whether or not integration raises technological problems, mainly of physical communication, or rather organizational problems such as the merging of smaller groups into bigger ones, size may be the essence of the matter; typically such merging occurs whenever peasant economies link up to form a larger society.

In early societies integration happens as a rule through the redistribution of goods from a center or through reciprocation between the corresponding members of symmetrical groups. The goods may be appropriated for distribution by peasant or chief, by temple or palace, by lord or village headman, through physical storage or through the mere collecting of rights of disposal of the goods. Both the deliveries to, and the awards from, the center are largely assessed as a function of a person's status, and the actual allocation happens through administrative decision. Reciprocity, as between kin or neighborhood groups, may link individual partners or comprise a whole sequence of symmetrical situations "in turn." Numerous combinations of reciprocity and redistribution occur. A third way of integrating the economy is by exchange or barter. To have an integrative effect, this pattern needs the instrumentality of price-making markets, as in nineteenth-century society where a supply-demand-price mechanism produced integrative prices. The mere presence of market elements or even of nonprice-making markets in a peasants' and craftsmen's society does not produce an exchange patterned economy.

No "stages theory" is here implied; a pattern may appear, disappear, and recur again at a later phase of the society's growth. Admittedly, exchange resulting in an integrative effect only appeared with the self-regulating system of competitive markets inaugurated in the nineteenth century. Where prices are "set," "fixed," or otherwise administered, they are produced not by the market but by administrative action. Redistribution was regularly practised in primitive tribes at the hunting and collecting stage; eventually it became a function of archaic administration, while in modern times it is a feature of industrial planned economies. Reciprocity was widespread among kinship-organized societies and still survives as the <u>raison d'etre</u> of Christmas trade of Western cultures. Only integration through <u>price-making</u> markets, as we have said, was unknown until recent times.

These patterns do not - and this should be stressed - supply us with a classification of economic systems as a whole; rather the coexistence of patterns notably of reciprocity and redistribution is common. Also markets which do not integrate the economy may fit into either pattern. And any of the patterns may predominate, reflect the movements through which land, labor, and the production and distribution of food are merged into the economy. But other patterns may obtain alongside the dominant one in the various sectors of the economy and at varying levels of its organization.

In the second approximation, patterns of integration are necessarily accompanied by the institutions through which the economy is organized. No complete theory of economic institutions is here intended. Some institutions are inherent in the pattern itself, such as a symmetrical structure for reciprocity or a degree of centralization for redistribution or price-making markets for integration through exchange. And already at this level institutional variants offer, for instance, temple or palace as a redistributive center. In addition, the patterns are as a rule accompanied by characteristic institutions, such as the drawing of lots for the division of booty or for the assignment of land or the allocation of burdens "in turn" under a reciprocity pattern. Storage arrangements, rations, and equivalents go with redistributive patterns. Less important institutional traits, of which there are many variants, tend structurally to adjust to these "characteristic" ones.

It must be apparent that just as the economy forms only a part of society, so the economy itself consists of differently patterned parts, each of which may have its characteristic institutions combined with a variety of traits.

Hence there is need for circumspection before one attempts the task of mapping the changing place of concrete economies in actual societies. One should distinguish between the society as a whole in which the economic, political, and religious spheres meet, the economic sphere itself, which sometimes combines several patterns of integration, the institutions characteristic of those patterns, and finally, variants of other institutional traits. The inquiry may thus come closer to the attainment of more ambitious aims, such as systematically relating the territorial spread of cultures to the economy. At any rate, it should point to some of the potentialities - and limitations - of the economic historian at the present stage of our knowledge.

The two problem groups that follow will serve to illustrate what we call the institutional analysis of economies. To simplify matters, we have selected examples from the economic history of ancient Greece, with references to Alalakh. The first group connects subsystem to subsystem, economy to polity; the second treats of palace economies from the angle of money uses.

Classical Athens offers an example of interaction between economy and polity. By the beginning of the fifth century the agora, in the sense of a market place, had become part of the economic organization of the Athenian polis, as magistracies and other offices and bodies were parts of her political constitution. Both the Athenian city-state's strength of resistence in an emergency and its incapacity to expand territorially sprang from this conjunction of agora and polis government. The agora was not, as our market system is, an open supply-demand price mechanism disciplined through competition and interdependence with other markets. It was (in modern terms) an artificial construct of limited access and dependent for supply, rates of currency, and price control upon the sanctions provided by the polity. The power of the democratic jurisdiction formed a frame of authority, which alone enabled the agora to function but at the same time marred the chances of its expansion by limiting its scope to the confines of the polis. And, conversely, the agora was the mainstay of the democracy, which was the driving force of territorial expansion, yet the self-same agora time and again frustrated such endeavors through its jealous nativism. These mutually restrictive features of economic structure and polis constitution accounted for many of the vicissitudes of the Hellenistic polis. Neither the polis as such, nor its agora, had aptitude for growth. Hellenism was essentially polis-culture of empire size gradually spreading over the Near East by virtue of the "barbarian" government of the countryside, the <u>chora</u>. (see below).

The palace economies of Mycenae and Alalakh are relatively new additions to our knowledge. For a comparative study of antiquity, the mesh of our patterns offers no more than a rough orientation. In order to study institutional structures, we require a finer texture. At least one further determinant should be added to the economy, namely the dimension of quantitativity. Statements that ignore the quantitative connotation of the movements that make up the economic process are inadequate. This implies that the development of the monetary sphere, in the widest sense, should offer a heuristic avenue to the analysis of economic institutions in early societies. A "monetary" approach of this kind will be attempted here in the comparison of Mycenae and Alalakh. On such a sharpening of our conceptual tools hinges, as will appear, the separation of submonetary devices from money proper, in Mycenae (see pp. 8-12), as well as the differentiation of Western Asian palace economies in terms of money uses, as shown by Alalakh (see pp. 12-14).

ECONOMY AND POLITY: AGORA, POLIS, CHORA

The Athenian agora may well have been the earliest market in the West which might be called a "city market." Yet such use of the term is slightly anachronistic. For the agora was historically not primarily a market place, but a site for meetings, and the Greek polis was not a city in the modern sense, but a state.

First, the agora. From about the end of the sixth century Attica apparently possessed in the town of Athens some kind of market place where food was retailed. Previously only Sardis, the capital of Lydia, seems to have been credited with such an open space, which was crossed by the gold-bearing Pactolus. Gold dust presumably was employed there for the purchase of prepared foods, while coins of electron were used for trade. In Athens, where gold was absent, small denominations of silver coins served the purpose of retailing. Without some such monetary device, distribution of food throughout the market would not have been practicable. Hot meals offered in the inn, cuts of tepid meat and snacks to consume in the alley, food stuffs to take home for the kitchen were the province of the kapelos (of authentically Lydian origin), to whose lowly figure was owed much of the famous ease of Athenian life. In the wake of the downfall of the tyrannis and its palace economy the agora eventually filled up with a variety of figures, male and female, selling mostly their own produce, self-raised or self-made. They rarely acted as middlemen, with the important exception of the grain trade, in which wheat imports were sold by supervised retailers.

Second, the polis. Athens the town had no resemblance to our medieval towns with their privileged citizenry lording it over the banlieue. True, the acropolis was an impregnable rock that overawed the flatland for a full day's ride. But the town of Athens had nevertheless no territory of its own, no legal or constitutional status, no juridical personality, no autonomy. Its agora could be put out of bounds to the unfriendly neighbor, but neither voters nor officeholders derived rights from their domicile in Athens. The privilege of keeping a stall in the agora was probably most of the time reserved for citizens, that is, citizens of Attica or Athens, not persons residing in Athens. Hence our hesitation to speak of the agora as a city market.

In what manner, then, did the agora assist the Athenian city state in its political rise, while at the same time hampering its territorial expansion? And, conversely, how far was the polis constitution favorable to the growth of the market habit, while forming an obstacle to its expansion into a market system reaching beyond the state boundaries?

The agora, even from its beginnings, was an asset to the state. Solon's reforms would hardly have prevented debt bondage from becoming a normal part of the labor structure but for the timely emergence of the market habit. The edge of debt sharpened by the recent spread of currency was blunted by the market. There the farmer could turn some of his produce into money, and the citizen-artisan could find food to keep body and soul together by picking up a job away from home. The chance of selling part of his crop in the market would save the indigent peasant from having to work off his debt; the possibility of getting food at the cookshop would rescue him from bondage to a neighbor to whom he otherwise would have to turn for bread in late winter. The market relieved the pressure of unemployment once foreign beaches began to be closed to overseas colonists; it helped to carry the floating population which provided the nerve of the navy in wartime. Thus the domestic peace for which Attica was famed and which made her eventually feared abroad owed much to the agora.

But the reverse was true as well. The market, which bolstered domestic solidarity and stimulated the forces of a maritime democracy, was also a source of parochialism. Market-fostered popular feeling, which defeated on the battle field the organizing capacity of the redistributive empire of Persia and acquired a thalassocracy for Attica, was haunted by a xenophobia which denied even the semblance of equity to allies and associates and thereby undermined the military strength of that very empire which patriotism had helped create. Yet nativism was inborn to the agora. To keep a stall in the agora was just as much a citizen's prerogative as was his claim to jury fees. The market place offered modest but easy earnings to the poorer part of a necessarily small citizenry, a feature that was to prove a fateful handicap to a polis way of life in its attempt to conquer the Oriental monarchies.

Let us now view the problem from the opposite angle and regard the growth of the agora as a function of the polity. Again, the two subsystems were out of step.

The agora formed part of the popular platform and was favored by the democratic faction. Cimon, the aristocratic leader preferred to pamper the conservative voter by offering the genteel poor modest hospitality at his table. Pericles, as the chief of the democratic party, supported the novel market habit; an Alcmaeonid himself, he gave it a fashionable coloring by personally shopping for his large and distinguished household. Democratic policies included daily fees paid from the treasury to citizens for jury and other public services, so that no one would be prevented by poverty from availing himself of his rights and performing his duties as a citizen. This policy fitted well with the practice of having food retailed cheaply in the market. The navy's popularity with the democratic faction reinforced the demand for an opportunity of spending oarsmen's pay on ready made provisions. Plutarch's account of Pericles' and Cimon's contention spotlights the agoraphil line of policy followed by the friends and partisans of democracy. By the first decade of the Peloponnesian War this trend was so popular that even Aristophanes - assuredly no democrat - had to moderate his sallies against the market. After the war, polis management of this meeting place of commerce became pervasive. The currency was closely supervised; contact with the piraeus was under check and control; prices were watched; retailers' profit was limited; the time and place of dealing was set out publicly; grain continued altogether under administrative control; the activity of the money changer, the trapezite slave squatting behind his bench was closely policed. Credit transactions in regard to foreign trade had to conform to rule and regulation. The resident alien was still barred from the acquisition of land and consequently from lending on urban property. Implicit in all this was the principle underlying the existence of the agora: he who appeared in the market must obey the law without hesitancy or reservation. There was no room here for our modern concept of the "laws of the market" as contrasted to the "laws on the statute book." Nor was there any sign of the medieval distinction between the "law of merchants" (*ius mercatorum*) and the "laws of the market place" (*ius fori*). Not the merchant's *privileges* but the authorities' ordinances were *binding*. The sanction of the market place was engraved on the heart of the citizens, a word that spelt loyalty to the common gods, not to the invisible god of the Persians nor even to the gods of the Hellenes, whose seat was on high Olympus, but to the local deity whose statue stood in the temple and whose aura maintained the identity of the polis. The boundaries of the market were as immovable as the gods.

It is worthy of notice that these results did not come about through the economic effects of the agora on the standard of life. Only indirectly - through its social effects - did the positive contributions of the agora and, perhaps even more, its negative ones affect the fate of the polis. Material welfare was but slightly influenced by its working. Neither the intense patriotism nor the monopolistic exclusiveness generated in the populace can be said to have greatly added to, or detracted from, the resources or supplies of the country. The market-induced attitudes were felt directly in the life of the community as forces of *anomie* as well as of social cohesion, the balance of which may well have *determined* the course of national history without any significant change in the national product having been registered.

As a wealth creating organ the agora was not a determining factor of growth. Producers' goods were not on sale; metals, marble, timber, pitch, flax were not among the commodities available; wholesaling was barred; deals in land were made indoors and were announced by the public herald. Farmers and craftsmen as such were the sellers; the general public with their small daily needs were the buyers. Most manufactures by-passed the market. Many were designed for use in public works, while others went through private contractors to the armament industries or directly to the manorial hall or the exporter, as did the big jars for oil. Bankers were not engaged in financing market purchases and no documents were issued to testify to such deals. Business was in cash. The rich man had his money carried by his servant; the poor who had no cash turned even for small sums to Theophrastus' petty usurer who made the rounds collecting his mites of interest. Payment for market purchases was not to be postponed. Even neighboring markets were unconnected. There was no arbitrage. When Cleomenes of Naukratis began to practice it in the interest of the Egyptian state, an outcry was raised in Athens.

The far-reaching consequences of the agora were, therefore, in the social and political field. Together with the introduction of coinage, it worked for equality of status and a self-reliant type of personality. The husbandman did not have to tremble for fear his landed creditor would auction him off to foreign parts as a defaulter. Similarly to Berber markets in Northwest Africa and the multitudes of small markets in the central and western Sudan, 2/ the market place was primarily a social and political institution providing facilities for the people's livelihood.

The market mechanism as such did not create the well known "economic" obstacles to welfare which are summed up under protectionism. Domestic producers apparently did not insist on tariffs; no farmer's pressure for higher prices is on record; foreign competition only seldom aroused hard feelings, thus forcing the government's hands in its dealings with allies, and no awkward effects of a competitive price mechanism interfered with national policies. If the demands of business men proved a hurdle to a successful empire policy, it was less on account of monopolists' interests than those of a majority of the small men. For at the mere threat of an increase in the population, opposition rallied, particularly if the threat stemmed from a policy of enfranchisement. Parpchialism would paralyze any welcoming gesture to immigrants and freeze any influx of new citizens, even from the ranks of the allies. Not market forces, but deepseated fears of ethnic and religious dilution seem to have been at work. Herodotus, Thucydides, Plato, Aristotle, the pseudo-Aristotelian Oeconomica One - none of them elaborate on the economic advantages or disadvantages of the agora. Even the Xenophontian praise of Athenian affluence refers to the Piraeus rather than to the agora. Plutarch, almost five hundred years later, still dramatized the role of the agora in Athenian politics without so much as mentioning the part it played in the economy. The Funeral Oration, an emphatically Athenian pronouncement, takes the agora for granted, as do the Viennese their coffeehouses. Pericles obviously included the agora among the scenes of liberal thought and social amenity and of that blossoming of a free and easy way of life that earned Attica the name of the "Education of Greece." Antedating the Funeral Oration, Herodotus in his history of the Persian Wars (i.153) prophetically elevated the uncommercial understanding of the agora into a criterion of the enlightened mind. And even Cyrus the Great, his hero among "barbarians," fell down on the test.

The division that eventually established itself between the Greek and the Persian parts of the Empire was to Rostovtzeff's penetrating mind among the sources of the disturbance in the Successor states of Alexander the Great. And he added this enlightening comment:

> The main difficulty with which the Successors were faced did not lie in their Oriental territories. There they had inherited a solid and

> reliable system of administration, taxation, and economic organization from Alexander, who in his turn had taken it over, at least in part, from the Persian kings. Their real difficulty lay with their Greek subjects in the East. (italics mine). 3/

The poleis of Asia Minor were dissatisfied with their rigorous treatment at the hands of Lysimachus and Ptolemy and even with the much more liberal regimes of Antigonus and Demetrius. Eternally struggling to regain their freedoms "the leading Greek cities shifted their support from one pretender to another, so that stability in this respect was never attained." In vain did the Successors create or re-create federations or leagues of cities as "a device directed against the isolation, political, social, and economic, of the single cities." The same is true of the synoecisms, "the attempts of many of the Successors to merge several small cities into a larger, richer, and more reliable State.... Synoecism was carried out on a very large scale by Lysimachus in the case of Ephesus, Colophon, and Lebedus." The synoecisms, we assume, were carried out particularly in order to ease the economic and financial plight of "small cities with small territories and a restricted population" overloaded with debt and burdening their own people with liturgies and compulsory loans - permanent sources of civil wars, lawsuits, and wars with neighbors.

The incurable particularism of these minute subdivisions "endeavouring to live in economic self-sufficiency" was to Rostovtzeff the canker of the polis system:

> The rulers believed that one of the main reasons why the cities were poor and in distress was that there were too many of them.... They therefore tried to convince the cities of the merits of their remedy and to induce them of their own will and decision to carry out a union with their neighbours. In this they mostly failed, and thereupon had recourse to compulsion, under the cloak of benevolent guidance. (italics mine).

Only through compulsion, then, could the polis be induced to give up its individuality.... Nevertheless Rostovtzeff put the blame for what he regarded as the unpardonable political and economic noncooperativeness of the Greek coastal strip in Asia Minor squarely on the polis.

This judgement sprang in our view, from a one-sided approach to the economic nature of the polis. The agora, which today is falsely regarded as the germ of an institution capable of linking up with similar entities to form a market system of limitless scope, was in its origin nothing of the sort. It was a creation of the polis which territorially walled it in. It was not born out of random transactions of unattached individuals whose collective attitudes eventually merged in the market as an institution in its own rights. Such a germination of markets, as anthropologists and sociologists have taught us, is unhistorical. Rather, markets were the result of deliberate policies of a kind of authority that even in bush and jungle enters into the shaping of all structured human behavior. To expect the polis to relinquish its individuality implies among other things the abandoning of the agora which was its organ of breathing and nutrition. On the other hand, to expect the agora to expand in a way that some fifteen centuries later the local market was capable of would imply that an institution can transcend its given structural limitations.

Rostovtzeff himself may have felt this contradiction, for he introduced his argument with a well-nigh invalidating admission. "The Successors", he wrote, "tried in various ways to get rid of...the particularly unsound and mischievous" elements in the polis tradition, "though they never attempted to change the type of economic system established in the Greek city-states". (italics mine). 4/ Yet short of that nothing could avail.

This concludes our discussion of economy and polity in classical Greece. In justice to two eminent minds who, separated by two millenniums, dealt in their own ways with the subject of polis and chora, it is meet to remark on the depths of this still unresolved controversy.

Rostovtzeff, in his appreciation of the pseudo-Aristotelian Oeconomica One summed up:

> ... at this time two types of economic and political organization balanced each other in the ancient world; that of the Oriental monarchies, represented by Persia and that of the Greek city-states. Each had behind it a long and glorious evolution, longer in the East, shorter in the West...Each endeavoured to extend its form of economic life to the rest of the ancient world. (italics mine) 5/

Rostovtzeff, it would appear, was at this point very near to penetrating the historical issue of polis and chora.

Aristotle's encomium of the small polis has been under a shadow in modern times. He appeared to lavish praise on the irretrievable past at the very dawn of the great empires. But the polis, far from fading out, as modern critics appear to postulate, persisted for several centuries in the expanding Hellenistic universe, unchanged and, indeed, unchangeable as Aristotle had upheld with so much conviction, while the ancient empires readjusted their own methods at the hands of the new Hellenic rulers who continued to pour forth from the training centers of the polis.

If Aristotle failed to give the chora its due, he at least did not underrate the staying power of the classical polis, provided it did not grow in size.

PALACE ECONOMIES FROM THE ANGLE OF MONEY USES

Submonetary Devices in Mycenae

Michael Ventris, the decipherer of Linear B, has asserted the absence of money in the palace economy of Mycenaean Greece. 6/ The term "Mycenaean Greece" derives from the earliest excavation of Mycenae, and comprises that site and Pylos, in the Peloponnese, together with Knossos, in Crete.

Mycenae, as we shall briefly call all of Mycenaean Greece, flourished in the thirteenth century. Its palace economy was of an extreme type. For it may well be the only case on record in which a literate community eschewed the employment of money for accountancy. Mycenae is, then, of singular interest to the student of early monetary institutions. In the absence of "anything approaching currency," 7/ the actual means of accountancy employed in the Mycenaean palace economy may offer a clue to a very early phase in the development of money.

The economic historian of antiquity cannot make use of the concepts of money, price, etc. inherited from nineteenth-century market economies without a considerable refinement of these terms. "Money," it is suggested, should be defined as "fungible things in definite uses, namely payment, standard, and exchange," while "price" should be replaced by the broader term "equivalence," which transcends markets.

Operational definitions of money take their start from a particular use to which fungibles may be put. Under Roman Law, res fungibiles are things quae numero, pondere ac mensura consistunt. In terms maybe more acceptable to the economist, they are durable objects that are quantifiable, whether by counting or by measuring. The payment, standard, and exchange uses of such objects are defined in a manner which avoids any implicit concept of money creeping into the formulations. This requires sociologically defined situations in which the fungible objects are put to any one of those three uses in an operationally defined fashion. "Payment" is defined as a handing-over of fungibles with the effect of ending an obligation (always on the assumption that more than one kind of obligation can be ended by the handing-over of one kind of fungible.) In their "standard" use fungibles serve as numerical referents; two different kinds of fungibles, like apples and pears, that are "tagged" to the standard can then be added up. In their "exchange" use fungibles are handled as middle terms (B) in indirect exchange, where C is acquired for A through the medium of B. "Being under an obligation," "adding up apples and pears," and "exchanging indirectly" are thus sociologically defined situations, while the manipulations of "handing-over," "referring to" or "tagging," and "exchanging twice over" are operationally defined. To state that money was absent in Mycenae strictly means that none of the staples were handled in a situation and manner that would amount to their use as payment, standard, or exchange. Not even metaphorically, as in regard to the attractive brides of the epics, are cattle named as a standard of appreciation in the Mycenaean tablets. Apart from a list of small weights of gold, the precious metals are hardly mentioned, though small uniform objects of gold similar to Egyptian units of treasure were found in the Mycenaean Acropolis. Silver -- the term chrysos we are told is of Semitic derivation -- hardly occurs in the tablets at all. Bronze is repeatedly mentioned as a raw material for weapons weighed out to the smiths from the palace but otherwise occurs only once and then not in a valuational context; prestige goods such as tripods serving as elite tool-money in the epics are absent in our accounts, as are also ornamental shells or beads. As to staples more commonly employed as money, such as barley in Sumer and Babylon or cacao in pre-Conquest Mexico, Ventris' unqualified negative settles the point. On the face of it, all this is surprising indeed. Yet its full implications can be gauged only if the scope of the accountancy is considered.

The authentic core of the Mycenaean economy was the palace household with its storage rooms and its administration which listed goods and personnel, land-ownings and small cattle, assessed deliveries in wheat or barley, oil, olives, figs, and a number of other staples, (largely unidentified) and handed out rations. The rest is conjectural: Homer's nine towns that belonged to the king of Pylos have been found, surrounded by a considerable number of villages with their common land and peasant holdings. There were slaves, a class of dependent laborers, also soldiers and oarsmen, who were sometimes recipients of rations, which, however mostly went to women and children. Manufactures were carried on by craftsmen and artisans, many belonging to the palace and others only supplied with raw materials from there. The products may have been partly employed in trading for the palace. Yet the outstanding fact about the inventory and the accounts is and remains the complete absence of money. One kind of goods could never be equated with, or substituted for, an amount of goods of a different kind. Accounts were strictly separate for each kind.

But how, then, was the palace's administration maintained over an economy of the extent of a good-sized city-state? The answer lies in devices which up to a point could be substituted for money and thus make possible staple finance which allowed an elementary form of taxation without the intervention of money.

Staple finance is the dealing with staples on a large scale, involving inventories and accountancy, for the purpose of budgeting, balancing, controlling, and checking. As a rule -- and this must be clearly understood -- staple finance requires the use of money. This comes about with the help of equivalencies that are set up between the staples and by the use of one or another of them as a standard which thereby acts as money. Staple finance is, then, always in kind, whether its accountancy makes use of money or not, but the absence of equivalencies necessarily reduces the handling of staples to a moneyless "finance." Only within one kind of staple is budgeting, balancing, control, and checking then possible. The vital operation of collecting goods at a center through the device of taxation is performed almost blindly. The accounts fail to show the total burden that is put on the contributing unit, whether individual or village. It is not possible to say by how much its burden would be increased or diminished by changes made in any one kind. Neither is there a measure at hand by which to raise the taxes proportionately to an increase in population or to maintain equity in the burdens imposed on bigger and smaller communities.

A fairly obvious remedy, still on a submonetary level, obtains as long as the taxation in kind happens within an ecologically homogenious region. A composite unit can be there formed consisting always of the same main staples in definite unchangeable physical proportions for purposes of taxation. Tax is then assessed according to the size of each village in multiples of this unit. The physical proportions which obtain between the goods in no way mean that the staples can be substituted one for another in those proportions and that the taxpayer is permitted to deliver one kind of staple instead of another. Nothing of the sort is involved. But the totaling of each kind of revenue is made much easier by the composite unit, as is the adjustment of the tax to changes in population. Moreover and this should not be forgotten - some serious disadvantages of monetization are avoided. The chief requirement of a balance in kind is certainly that at any given moment rations and other obligations that are due are actually available in kind. But any equivalency that has been accepted as a standard may act as an inducement for the substitution of one staple for another, whether in delivery or in handing out, and thereby frustrate that basic requirement. Any assurance of "effective liquidity" would be gone. A composite tax unit avoids this danger.

Linear B, the script in which Mycenaean accountancy was done, shows proof of just such a device. In two cases we have explicit statements of the physical proportions in which the composite tax contained the staples. One is shown in the Pylos Ma- tablets:

> ...A number of townships are put down for a contribution of six different commodities, mostly so far unidentified. The scale of the total contribution varies for each town, but the mutual proportions of the six commodities remain constant at 7:7:2:3:1½:150. 8/

The other occurs in the Knossos Mc- tablets, which

> ...contain lists of four commodities, one of which Evans identified as the horns of agrimi goats for making composite bows. Their amounts conform, with rather wider variations than on the Pylos Ma-tablets, to a ratio of 5:3:2:4. 9/

Yet, we repeat, nowhere is there an equivalency, nor anything approaching a standard, and, a fortiori, money.

A submonetary device acts in a purely operational fashion. Complex arithmetical results, which in the economic sphere are usually gained through calculations in monetary terms, appear to have been attained in early society by means of operational devices without intervention either of money or of reckoning. In the light of these considerations we shall try to penetrate further into the earliest history of money.

From times immemorial wheat has been distributed in the Indian village community 10/to the various claimants - tillers, craftsmen belonging to their respective castes, village officials, and last but not least, the landlord and the prince - by the simple means of handing out grain from the heap in a certain sequence which combines portions of absolute amounts with a number of unit measures that go to each in turn. The traditional sequence is extremely intricate. Yet the method is of utmost simplicity. There is no need to know how many units the heap contains, nor to how many units each claimant has a right, nor how much he actually gets, for once the heap is gone such questions are rather pointless in view of the certainty that each received his due, neither more nor less. No money and no reckoning enter into the operation.

Another submonetary device, this time regarding trade and very different from that of the grain heap, is indicated in passages from Ezekiel, chapter 27, and some 250 years later in Aristotle's Politics. The Old Testament prophet describes the many-sided foreign trade carried on by Tyre, Queen of the Seas, while Aristotle offers an analysis of the role played by monetary objects in long-distance trade. Ezekiel speaks of the traders as "reckoning" one another's goods in their own, while Aristotle says that money sets the limit and the pace to trading. They both appear to have had the same operational image before them. He who sells a cargo of grain from his ship's bottom, sheep from the corral, or oil from the store beneath the temple makes his ware come forth from the stock - unit by unit - and makes his trading partner move his goods at the same pace in the opposite direction - unit for unit - until one or the other stock is exhausted. Again the method could not be simpler. There is no need for any knowledge of how many units of goods either of them possesses, nor -- if the rate happens not to be 1 : 1 -- of how many units of the other's goods each of them is supposed to receive, nor even of how many each actually receives, as long as the rate at which the operation progresses is the agreed one, since both necessarily have received the right amount at whatever moment the transaction is discontinued. And, as in the former case, neither money nor calculation is required.

These two instances of submonetary devices stem from very different situations. The one may have been common in Pharaonic Egypt with its storage economy, the other in the Fertile Crescent which could not survive without extended long-distance trade. The one belongs in the realm of redistribution, the other in that of exchange.

Surely it is more than a coincidence that Linear B deviated from the original Linear A precisely at a point which mirrors in a striking fashion this type of difference. Linear A was a fairly primitive script of the Minoan speaking natives of Crete (whose language is still unknown to us). It was continued and developed by the invading Greeks in Linear B, for the purpose of writing their own language and with a greater wealth of syllabic signs and ideograms. These changes were accompanied by just one other innovation, which can be hardly unconnected with the shifting from the native Minoan economy to that of the Greek newcomers, namely, a different notation of fractions. While Linear A used numerical notation akin to that of the Egyptians, Linear B changed to the wholly different system of fractional measures, used exclusively in the Fertile Crescent. The numerical notation employed figures, such as 1/2, 1/4, 1/3, 1/6, 2/3, while the fractional measures carried names comparable with modern hundredweights, pounds, and ounces or bushels, gallons, quarts, and pints. The simultaneous change-over to the Greek language and to fractional measures happened about the middle of the second millennium B.C. at a time when redistribution of grain from Pharaonic stores was dominant in Egypt, while between Mainland Greece and Western Asia trade was on the rise. 11/ It seems obvious that the Greek seafarers were more interested in trade with the East than were the Minoan-speaking natives whose script they borrowed and whose economy resembled that of Egypt.

For an analytical study of early money the disentangling of fractional measures in Linear B by Emmett L. Bennett, Jr., 12/ should therefore prove a most promising beginning. It may, as he suggests throw light on the early history of the Mycenaean Greeks. It certainly seems to prove that among the multiple origins of money we must also list manipulations of an elementary character which do not assume any arithmetical operations whatsoever, not even counting. The composite tax unit that is present in traces in the Mycenaean tablets seems to be such a submonetary device.

The Prestige Sphere in Staple Finance

The first to call for a comparison of Mycenae with the palace economies of West Asia was Michael Ventris himself. Again and again he named those of Sumer, Ur, Babylon, Assur, the Hittites, and Ugarit as parallel instances, not omitting Alalakh from the list. Our own survey of Alalakh, restricted to secondary sources, is in line with that suggestion. To our surprise we found that the differences between Mycenae and Alalakh in regard to money uses were at least as worthy of note as the general similarities between these two palace economies. Ventris naturally centered on the redistributive character common to palace economies, since the role of money had not yet moved into the over-all picture. Otherwise he could not but have remarked on the singularity of Mycenae, which knew not money (a fact which he was first to state) in contrast to the West Asian civilizations which employed money in more than one way.

Still another surprise was in store. Alalakh, which at first glance seemed monetized as much as its Mesopotamian partners, on a closer view turned out to resemble moneyless Mycenae with its Greek culture and Minoan script, a thousand miles away, rather than its own eastern neighbors, whose cuneiform writing and Akkadian official language were first cousins to those of Alalakh.

Several questions arise. Was the original assumption of Alalakh's monetized accountancy well grounded? And, if not, how should the evidence which seemed to point in that direction be interpreted? Secondly, how then, did its palace economy function? If Mycenae's hidden strength lay in submonetary devices, what lesson could be drawn from Alalakh?

Alalakh was a small but long-lived North Syrian kingdom, whose external relations from both the political and the economic angle were far from simple. Its economy and even more its finance reflected up to a point the complexity of these conditions.

Sir Leonard Woolley, the excavator of Alalakh, tells us how the city lay in that crowded stretch of the Fertile Crescent where in the second half of the second millennium B.C. the Hittite and Egyptian great powers met. The Hittites had once raided Babylon and eventually defeated Egypt in the battle of Kadesh, on the Orontes. A fourth power, Mitanni, with its mainly Hurrian population, was mostly wedged between the land of the Hittites and Babylonia. Alalakh was in the eighteenth century B.C. closely dependent upon the city of Aleppo. (In the fifteenth century Alalakh appeared as a semi-independent state.) The key to the over-all situation, in which Alalakh benefited from the balance between the great powers, was its geographical location. It formed the hinterland to the port of al-Mina, at the mouth of the Orontes, which together with its southern neighbor on the coast, the port of Ugarit, represented a vital access to the Mediterranean for the inland empires, whether Hittite, Babylonian, or Mitannian. Ugarit was, moreover, Egypt's maritime point of access to the caravan routes of the Fertile Crescent. This configuration resulted in a coastal area of relative peacefulness in the middle of the second millennium. The inland empires traditionally avoided conquest of the coast for fear that the "riches of the sea" would cease to flow through militarily occupied ports; 13/ they preferred most of the time to exert but mild pressure in the direction of the sea, agreeing to keep the coast unoccupied and the caravan roads to it open or maybe even tacitly arranging for zones of influence. Such an arrangement might, for instance, have left southerly Ugarit in the Egyptian zone and northerly al-Mina in the Hittite zone, while allowing the eastern powers, Mitanni and Babylon, transit to either. Hence there may have been a network of international treaties by which a militarily weak and semidependent Alalakh secured its position in the midst of rival empires.

In regard to staple finance and trade the situation of Alalakh was, then, in all probability more complex than that of the Mycenaean cities of Pylos, Knossos, or Mycenae itself. Records show a flow of silver during the eighteenth century, large amounts of annual regional revenue collected in silver and passed on to higher administrative authorities; royal visits, betrothals, and other ceremonial occasions requiring a display of valuables; a drain on precious metals exerted by the temples; sums paid out as awards within the related ruling families; expenses of the local prince, particularly for raw materials to the "goldsmiths" (mostly dealing with silver); numerous other requirements of diplomacy and etiquette; purchases of land tracts comprising many villages in the course of adjustments involving exchanges of territory between contiguous administrations; caravan trade in transit, apparently requiring the military protection of nomadic chiefs. All these factors involved a movement of precious metals, whether acquired from foreign mine-owning rulers or indirectly through tributes and taxes. Such was the eighteenth-century picture to which our data refer.

We are here concerned, of course, not so much with the economic as with the financial aspect of Alalakh. According to D.J. Wiseman 14/ the silver shekel was in the eighteenth century "a true currency" and "the principal medium of exchange." It seems very doubtful to us, however, that the level of accountancy in Alalakh was actually much higher than that of Mycenae, where money was altogether absent. Only in the prestige sphere, apparently, was silver widely employed for payment and certainly established as a standard of account. Outside that sphere accountancy was "in kind," each species of commodity being totaled separately (as in Mycenae). But the evidence seems to point to an intermediate state of affairs in which a prestige sphere, accounted in silver, formed the core of the staple finance while the subsistence sphere was accounted "in kind" without the intervention of money.

The sixty to seventy texts mentioning silver shekels would then appear to be satisfactorily explained by the concept of prestige goods. Silver, being treasure, was employed for uses that befit prestige goods, and expenditures made for such purposes were accounted in silver shekels. In other words, since the prestige sphere -- sacral, royal, diplomatic, or relating to top-ranking civil and military bureaucracy -- was the traditional field for the use of treasure, accountancy in silver shekels was the given form of bookkeeping in this sphere. The frequent mention of silver accounts merely proves the presence of important hoards of silver in the possession of king, temple, or treasury and of a rigorous accountancy in regard to it.

Admittedly, much is still unexplained. The use of silver shekels as money of account in the prestige sphere would seem to imply the existence of some silver equivalencies in that sphere. Yet, with a very few unimportant exceptions (see below), no equivalencies in silver are indicated, nor can such be implied. The main group of transfers of silver represents physical amounts of silver given either by weight or as objects for which the silver served as raw material and which are listed by weight in terms of shekels. There follow yearly totals of tribute amounting to over one thousand and over two thousand talents respectively, that is several millions of shekels each. (These two items are from fifteenth-century tablets.) The third group comprises shares in the great king's booty, in royal inheritances, in awards between royal relatives; a fourth large group of items are plain gifts to gods, sovereigns, and other important persons, with no counterpart in evidence. The fifth group consists of the prices of villages and territories bought from neighboring sovereigns. In striking contrast to all these massive transfers of silver without any equivalencies, there are small conventional items such as tips to servants, perhaps according to their master's rank, a day's provisions to a messenger or the fodder for his mount, and similar trivial expenses. The origin of these not too impressive equivalencies is obscure. However, they seem to derive largely from the equivalency of 1 shekel of silver to 1 PA of grain, to which we shall return presently. Finally, there is a group of silver items which appear to belong not to the treasury but to the household of the palace itself. An amount of 10 shekels goes as a "loan" to craftsmen and artisans engaging them for lifelong service in the palace; employment in the palace seems to have conferred status, in a modest way. Distinctly larger loans of 20, 30, and 60 shekels apparently go to persons of higher status, distinguished by mention of their patronymic, "family," or sons' names. In still other cases either apprenticeship or supervision of training appears to be involved; in these "middle-class" loans there is a curious practice of lending a round sum plus 1, such as 21 or 31 shekels.

All this referred to silver accounts. But by far the largest number of items concerned staple finance in kind, such as deliveries to the palace and rations handed out from there. Nevertheless no equivalencies either for the various staples or for silver can be traced, with the following exceptions: 1 shekel of silver : 1 pot of best beer : 2 parisi of emmer 15/ and 1 shekel of silver : 1 PA of grain. The latter if of course the oldest and best known equivalency of the cuneiform civilizations of Mesopotamia. In the light of what has been said above, it might not be too rash to infer that it expressed the status relations of two potential currencies, namely, a currency of the prestige sphere of the ruling classes (silver) and one of the subsistence sphere of the common people (grain).

Indeed, it seems well possible that, similarly to the prestige function of treasure, which introduces the silver shekel into all records of prestige activities, the fact of status (another building stone of archaic society) may enter into broad sectors of economic life as a quantifying factor. In Aristotle's time - fifteen centuries later - it was still possible to argue the just price in terms of producer's status. Some quantitative facts of the Alalakh economy bear traces of such a connection. That both deliveries and rations reflect status seems to us in the nature of things. So may some equivalencies reflect social stratification, in a customary way.

In conclusion we might suggest the notion of a cultural continuum of monetary uses ranging from the zero point of Mycenae to the near saturation point of the Mesopotamian empires of the middle of the first millennium. Palace economics, big and small, Asiatic, Egyptian, and European, may be found to have possessed organizations that were distinguished mainly by the manner in which the various monetary uses were institutionalized.

FOOTNOTES

1/ See Trade and Market in the Early Empires, edited by Karl Polanyi, Conrad M. Arensberg, and Harry W. Pearson (Glencoe, Illinois, 1957).

2/ See Rosemary Arnold, "A port of trade: Whydah on the Guinea coast," and Francisco Benet, "Explosive Markets: The Berber highlands," ibid pp. 154-75 and 188-213 respectively.

3/ M. Rostovtzeff, Social & Economic History of the Hellenistic World (Oxford, 1941) I 152 f.

4/ See Ibid. p. 154.

5/ Ibid. p. 75.

6/ See Michael Ventris and John Chadwick, Documents in Mycenaean Greek (Cambridge, 1956) p. 198.

7/ Ibid. p. 198.

8/ Ibid. p. 118.

9/ Ibid. p. 119.

10/ See Walter C. Neale, "Reciprocity and redistribution in the Indian village," in Trade and Market in the Early Empires, pp. 224-27.

11/ See W.F. Albright, "Some Oriental glosses on the Homeric problem," in the American Journal of Archaeology LIV (1950) 162.

12/ "Fractional quantities in Minoan bookkeeping," American Journal of Archaeology LIV 204-22.

13/ Cf. Anne M. Chapman, "Trade enclaves in Aztec and Maya civilizations," Trade and Market in the Early Empires, pp. 114-46.

14/ The Alalakh Tablets ("Occasional Publications of the British Institute of Archaeology at Ankara," No. 2 London, 1953) pp. 13-14.

15/ Ibid. pp. 93 f., No. 324b.

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ON THE COMPARATIVE TREATMENT OF ECONOMIC INSTITUTIONS

-- Illustrations from Athens, Mycenae and Alalakh --

I. Tools of analysis

II. Economy and polity: agora, polis, chora

III. Palace economies and money uses

1. Sub-monetary devices
2. The prestige sphere in staple finance

by

Karl Polanyi

I.

TOOLS OF ANALYSIS

Two features of the economy will be selected for inquiry: the relations that obtain between the economic and the political system in society; the manner in which the uses of money are instituted, primarily in palace economies. In either case some random reflections on territorial expansion seem possible; yet the main emphasis must lie not on these reflections but rather on the conceptual tools employed in the comparative treatment of economies as we meet them in history.

The economy, then, in our reading, is an institutionalized process - a sequence of functional movements that are embedded in social relations. The function of the movements is to supply a group of individuals with a flow of material goods; the social relations in which the process is embedded invest it with a measure of unity and stability. The movements are either locational or appropriational or both. That is, the things move either in relation to other things, which includes production and transportation, or in relation to the persons who need them or dispose of them.

Process and institutions together form the economy. Some students stress the material resources and equipment - the ecology and technology - which make up the process, others, like myself, prefer to point to the institutions through which the economy is organized. Again, in inquiring into the institutions one can choose between values and motives on the one hand, physical operations on the other -- either of which can be regarded as linking the social relations with the process. Perhaps because I happen to be more familiar with the institutional and operational aspect of man's livelihood, I prefer to deal with the economy primarily as a matter of organization, and to define organization in terms of the operations characteristic of the working of the institutions.

I am conscious of the inherent limitations of such a treatment particularly from the point of view of general sociology. For the process is not embedded in 'economic' institutions alone -- a matter of degree, anyway -- but in political and religious ones as well; nor do physical operations exhaust the range of relevant human behaviour, either. But it helps roughly to disentangle the economy from other sub-systems in society, such as the political or the religious, and thereby make reasonably sure that we know what we mean when we are so confidently talking about 'the economy'.

In the first and admittedly almost too rough approximation, economies form a going concern mainly by virtue of a few patterns of integration, namely reciprocity, redistribution and exchange. An historically important fourth pattern might be seen in householding, the manner in which a peasant economy or a manorial estate is run, though formally it is no else than redistribution on a smaller scale. By itself, or together with the others, each of the three patterns is capable of integrating the economy, i.e., ensuring its stability and unity. Whether this raises technological problems mainly of transportation or rather organizational ones, such as the merging of smaller groups into bigger ones, size may be of the essence of the matter; typically this occurs whenever peasant economies link up into a larger society.

In early societies integration happens, as a rule, through the redistribution of goods from a center or through reciprocation between the corresponding members of symmetrical groups. The goods may be appropriated for distribution by peasant or chief, temple or palace, lord or village headman -- whether through physical storage, or through the mere collecting of rights of disposal over the goods. Both the deliveries to, and the awards from, the center are largely assessed as a function of a person's status, and the actual allocation happens through administrative decision. Reciprocity as between kin or neighborhood groups may link individual partners, or comprise a whole sequence of symmetrical situations "in turn". Numerous combinations of reciprocity and redistribution occur. A third way of integrating the economy is exchange or barter. To have an integrative effect, this pattern needs the instrumentality of price-making markets, as in nineteenth century society where a supply-demand-price mechanism produced integrated prices. The mere presence of market elements or even of non-price making markets in a peasants' and craftsmen's society does not produce an exchange patterned economy.

No 'stage theory' is here implied; a pattern may appear, disappear and recur again at a later phase of the society's growth. Admittedly, exchange of an integrative effect was reserved to the self-regulating system of competitive markets inaugurated by the nineteenth century. Where prices are "set", "fixed" or otherwise administered, the price is not produced by the market, but by administrative action. Redistribution is regularly practised in primitive tribes at the hunting and collecting stage; eventually it was a function of archaic administration, while in modern times it is a feature of industrial planned economies. Reciprocity is widespread among kinship organized societies and still survives as the raison d'être of Christmas trade of Western cultures. Only integration through price-making markets, as we said, was unknown until recent times.

Nor do these patterns - this should be stressed - supply us with a classification of economic systems as a whole; rather the coexistence of patterns notably of reciprocity and redistribution is common. Also markets which do not integrate the economy may fit into either pattern. And any of the patterns may predominate, i.e., reflect the movements through which land, labour as well as food, its production and distribution, are merged into the economy. But patterns may obtain alongside of the dominant one in the various sectors of the economy and at varying levels of its organization.

In the second approximation, patterns of integration are necessarily accompanied by the institutions through which the economy is organized. No complete theory of economic institutions is here intended. Some institutions are inherent in the pattern itself, such as a symmetrical structure for reciprocity or a degree of centrality for redistribution; in the same way price-making markets are needed for integration through exchange. And already at this level institutional variants offer, for instance, temple or palace as redistributive centers. Apart from this, the patterns are as a rule accompanied by characteristic institutions, such as the drawing of lots for the division of booty or for the assignment of land or the allocation of burdens "in turn", under a reciprocity pattern. Storage arrangements, rations and equivalents go with redistributive patterns. Less important institutional traits, of which there are many variants, tend structurally to adjust to these "characteristic" ones.

It must be apparent that just as the economy forms only a part of society, so the economy itself consists of differently patterned parts, each of which may have its characteristic institutions, combined with a variety of traits.

Hence the need for circumspection before any one would attempt the task of mapping the changing place of concrete economies in actual societies. He would be well advised to distinguish between the society as a whole, in which the economic, political or religious spheres meet; the economic sphere itself, sometimes combining several patterns of integration; the institutions characteristic of those patterns; finally variants of other institutional traits. This may help advance the inquiry closer to the attainment of more ambitious aims, such as systematically relating the territorial spread of cultures to the economy. At any rate, it should point to some of the potentialities - and limitations - of the economic historian at the present stage of our knowledge.

The two problem groups that follow shall serve to illustrate what we should like to call the institutional analysis of economies. To simplify matters, examples were selected from the economic history of ancient Greece, with references to Alalakh.

The first group connects sub-system to sub-system - economy to polity; the second treats of palace economies from the angle of money uses.

Classical Athens offers an example of interaction between economy and polity. By the beginning of the fifth century the agora, in the sense of market place, had become part of the economic organization of the Athenian polis, as magistracies and other offices and bodies were parts of her political constitution. Both the Athenian city-state's strength of resistence in an emergency and its incapacity to expand territorially sprang from this conjunction of agora and polis government. The agora was not, as our market system is, an open supply-demand price mechanism disciplined through competition and interdependence with other markets. It was (in modern terms) an artificial construct of limited access and dependent for supply, rates ~~of~~ currency and price control upon the sanctions provided by the polity. The power of the democratic jurisdiction formed a frame of authority, which alone enabled the agora to function, at the same time marring the chances of its expansion by limiting its scope to the confines of the polis. And in the reverse: the agora was the mainstay of the democracy, that was the driving force of territorial expansion, yet the self-same agora time and again frustrated such endeavours through its jealous nativism. These mutually restrictive features of economic structure and polis constitution accounted for much of the vicissitudes of the Hellenistic polis. Neither the polis as such, nor its agora had aptitude for growth. Hellenism was essentially polis-culture gradually spreading over the Near East by virtue of the "barbarian" government of the countryside, the <u>chora</u>. (Section II)

Prices
exchange
for

The palace economies of Mycenae and Alalakh are a relatively new addition to our knowledge of antiquity. For a comparative study as here intended, the mesh of our integrative patterns offers no more than an initial orientation. In order to analyze historical institutional structures, a finer texture is required. At least one further determinant should be added to the economy, namely, the dimension of quantitativity. Statements that ignored this quantitative connotation of the movements that make up the economic process, would be seriously inadequate. In institutional terms this implies that the development of the monetary sphere, in the widest sense, should offer an heuristic avenue to the analysis of economic institutions in early societies. A "monetary" approach of this kind shall be attempted here in comparing Mycenae to Alalakh. On such a sharpening of our conceptual tools hinges, as will appear, the separating off of sub-monetary devices from money proper, in Mycenae (Section III. 1), as well as the differentiating among Western Asian palace economies in terms of money uses, as shown in Alalakh (Section III.2).

II.

ECONOMY AND POLITY : AGORA, POLIS, CHORA

The Athenian agora may well have been the earliest market in the West which might be called a city-market. Yet the term is here slightly anachronistic. For the agora in Athens was historically not primarily a market-place, but a site for meetings, and the Greek polis was not a city in the modern sense, but a state.

First, the agora. Since about the end of the sixth century Attica appears to have possessed in the town of Athens some kind of a market-place where food was retailed. Previously only Sardis, the capital of Lydia, seems to have been credited with such an open space, crossed by the gold bearing Pactolus. Gold dust, it should be assumed, was employed there for the purchase of prepared foods, while coins of electron were used for trade. In Athens where gold was absent small demominations of silver coins served the purpose of retailing. Without some such monetary device a distribution of food throughout the market would not have been practicable. Hot meals offered in the inn, cuts of tepid meat and snacks to consume in the alley, food stuffs to take home for the kitchen was the province of the <u>kapēlos</u> (of authentically Lydian origin) to whose lowly figure much was owed of the famous ease of Athenian life. In the wake of the downfall of the tyrannis and its palace economy the agora eventually filled up with a variety of figures, male and female, selling mostly their produce, self-raised or self-made. They rarely acted as middle-men, with the important exception of the grain trade, in which wheat imports were sold by supervised retailers.

Second, the polis. Athens the town, had no resemblance to our medieval towns with their privileged citizenry lording it over the <u>banlieu</u>. True, the acropolis was an impregnable rock that overawed the flatland for a full day's ride. But the town of Athens had nevertheless no territory of its own, no legal or constitutional status, it possessed no autonomy, no juridical personality. Its agora could be put out of bounds to the unfriendly neighbour, but neither voters nor office holders derived rights from their domicile in Athens. The privilege of keeping a stall in the agora was probably most of the time reserved to citizens; but this meant citizens of Attica or Athens, not persons residing in Athens. Hence our hesitation to speak of the agora as a city-market.

In what manner did then the agora assist the Athenian city-state in its political rise, while at the same time hampering its territorial expansion? And vice versa: How far was the polis constitution favorable to the growth of the market habit, while forming an obstacle to its expansion into a market-system that would reach beyond the state boundaries?

The agora, even from its beginnings, was an asset to the state. Solon's reforms would hardly have been able to prevent debt bondage from becoming a normal part of the labour structure, but for the timely emergence of the market habit. The edge of debt sharpened by the recent spread of currency was blunted by the market. There the farmer could turn some of his produce to money, and the citizen artisan find the food to keep body and soul together when picking up a job ~~off~~ his home. The chance of selling part of his crop in the market would save the indigent peasant from having to work off his debt; the possibility of getting food at the cook-shop would rescue him from bondage to a neighbour to whom he otherwise would have to turn for bread in late winter. It relieved the pressure of unemployment once foreign beaches began to be closed to overseas colonists; it helped to carry the floating population which

away from home

provided the nerve of the navy in wartime. Thus the domestic peace for which Attica was famed and which made her eventually feared abroad owed much to the agora.

But the reverse was true as well. The market which bolstered domestic solidarity and stimulated the forces of a maritime democracy was also a source of parochialism. Market-fostered popular feeling which defeated on the battle-field the organizing capacity of the redistributive empire of Persia and acquired a thalassocracy for Attica, was haunted by a xenophobia which denied even the semblance of equity to allies and associates, thereby undermining the military strength of that very empire which patriotism had helped create. Yet nativism was inborn to the agora. To keep a stall in the agora was just as much a citizen's prerogative as was his claim to jury fees. The market-place offered modest but easy earnings to the poorer part of a necessarily small citizenry, a fact that was to prove a fateful handicap to a polis way of life, out to conquer the Oriental monarchies.

Let us now view the problem from the opposite angle, and regard the growth of the agora as a function of the polity. Again, the two sub-systems were out of step.

The agora formed part of the popular platform and was favored by the democratic faction. Cimon, the aristocratic leader, preferred to pamper the conservative voter by offering the genteel poor modest hospitality at his table; Pericles, as the chief of the democratic party, supported the novel market habit. An Alcmaeonid himself, he gave it a fashionable coloring by personally shopping for his large and distinguished household. Democratic policies included daily fees to be paid from the treasury to citizens for jury and other public services, so no one should be prevented by poverty from availing himself of his rights and performing his duties as a citizen. This fitted well with the practice of having food retailed cheaply in the market. The navy's popularity with democratic opinion reinforced the demand for an opportunity of spending oarsmen's pay on ready made provisions. Plutarch's account of Pericles' and Cimon's contention spotlights the agoraphil line of policy followed by the friends and partisans of democracy. By the first decade of the Peloponnesian War this trend was so popular that even Aristophanes - assuredly no democrat - had to moderate his sallies against the market. After the war, polis management of this meeting place of commerce became pervasive. The currency is closely supervised; contact with the Piraeus is under check and control; prices are watched and regulated; retailers' profit is limited; the time and place of dealing is set out publicly; grain continues altogether under administrative control; the activity of the money changer, i.e., the trapezite slave squatting behind his bench, is closely policed. Credit transactions in regard to foreign trade have to conform to rule and regulation. The resident alien is still barred from the acquisition of land and consequently from lending on urban property. Implicit in all this is the principle underlying the existence of the agora: he who appears in the market must obey the law without hesitancy or reservation. There is no room here for our modern concept of "the laws of the market" as contrasted to the "laws on the statute book". Nor is there any sign of the medieval distinction between the <u>law of merchants</u> (<u>ius mercatorum</u>) and the <u>laws of the market-place</u> (<u>ius fori</u>). Not the merchant's personal privileges but the authorities' ordinances are binding. The sanction of the market-place is engraved on the hearts of the citizens, a name that spelt loyalty to the common gods, not to the invisible god of the Persians, not even the gods of the Hellenes whose seat was on high Olympus, but the local deity whose statue stood in the temple and whose aura maintained the identity of the polis. The boundaries of the market were as immovable as the gods.

It is worthy of notice that the agora did not work these results through its economic effects on the standard of life. Only indirectly -- through its social effects -- did the positive contributions of the agora, and, perhaps even more, its negative ones affect the fate of the polis. Material welfare was but slightly influenced by its working. Neither the intense patriotism nor the monopolistic exclusiveness generated in the populace can be said to have greatly added to, or detracted from, the resources or supplies of the country. The market-induced attitudes made themselves felt directly in the life of the community as forces of anomie as well as of social cohesion the balance of which may well have determined the course of national history without previously registering any significant change in the national product.

As a wealth-creating organ the agora was not a determining factor of growth. Producers' goods were not on sale -- metals, marble, timber, pitch, flax, were not among the commodities available; wholesaling was barred; deals in land were made indoors and were announced by the public herald. Farmers and craftsmen as such were the sellers; the general public with their small daily needs were the buyers. Most manufactures by-passed the market. Many were designed for use in public works, including the ample buildings, walls, aqueducts, sewers, ports, others went through private contractors to the armament industries, or directly to the manorial hall or to the exporter, as did the big jars for oil. Bankers were not engaged in financing market purchases and no documents were uttered to testify to such deals. Business was in cash; the rich man had his money carried by his servant, the poor who had no cash turned even for small sums to Theophrastus' petty usurer who made the rounds collecting his mites of interest. Payment for market purchase was not to be postponed. Even neighbouring markets were unconnected. There was no arbitrage. When Cleomenes of Naukratis began to practice it in the Egyptian state interest, an outcry was raised in Athens.

The far-reaching consequences of the agora were, therefore, in the social and political field. Together with the introduction of coinage, it worked for equality of status and a self-reliant type of personality. The husbandman need not have to tremble that his landed creditor auction him off to foreign parts as a defaulter. Similarily to Berber markets in Northwest Africa or the multitudes of small markets in the Central and Western Sudan, the market place was primarily a social and political institution providing facilities for the people's livelihood.

Nor did the market mechanism as such create the well known 'economic' obstacles to welfare, summed up under protectionism. Domestic producers did not appear to insist on tariffs; no farmer's pressure for higher prices is on record; foreign competition only seldom aroused hard feelings thus forcing the government's hands in their dealings with allies -- no awkward effects of a competitive price mechanism interfered with national policies. If business men's demands proved a hurdle to a successful empire policy, it was less on account of monopolists' interests, than of those of a majority of the small men. For at the mere threat of an increase in the population, opposition rallied, particularly if the threat stemmed from a policy of enfranchisement. Parochialism would paralyze any welcoming gesture to immigrants and freeze the influx of new citizens, even from the ranks of the allies. Not market forces, but deepseated fears of ethnic and religious dilution seem to have been at work. Herodotus, Thucydides, Plato, Aristotle, the pseudo-Aristotelian <u>Oeconomica One</u> -- none of them elaborate on the economic advantages or disadvantages of the agora. Even the Xenophontian praise of Athenian affluence refers to the Piraeus rather than the agora. Plutarch, almost five hundred years later still dramatized the role of the agora in Athenian politics without so much as mentioning its part played in the economy. The Funeral Oration, an emphatically Athenian pronouncement, takes the agora for granted, as do the Viennese their coffee house. Pericles obviously included it among the scenes of liberal thought and social amenity, of that blossoming of a free and easy way of life that earned Attica the name of the Education of Greece. Antedating the Funeral Oration, Herodotus in his history of the Persian Wars had prophetically elevated this uncommercial understanding of the agora into a criterion of the enlightened mind. And even Cyrus the Great, his hero among 'barbarians', had fallen down on the test.

The division that eventually established itself between the Greek and the Persian parts of the Empire was to Rostovzeff's penetrating mind among the sources of the disturbance in the Successor states of Alexander the Great. And he added this enlightening comment:

> The main difficulty with which the Successors were faced, did not lie in their Oriental territories. There they had inherited a solid and reliable system of administration, taxation and economic organization from Alexander, who in his turn had taken it over, at least in part, from the Persian kings. <u>Their real difficulty lay with their Greek subjects in the East</u>.

The <u>poleis</u> of Asia Minor were dissatisfied with their rigorous treatment at the hands of Lysimachus and Ptolemy, and even of the much more liberal regimes of Antigonus and Demetrius. Eternally struggling to regain their freedoms

> the leading Greek cities shifted their support from one pretender to the other, so that stability in this respect was never attained.

In vain did the Successors try to create or re-create federations or leagues of cities as

> a device directed against the isolation, political, social and economic of the single cities.

The same is true of the synoecisms, i.e.,

> the attempts of many Successors to merge several small cities into a larger, richer, and more reliable State.

This was

> carried out on a very large scale by Lysimachus in the case of Ephesus, Colophon, and Lebedus.

This latter method was, we should assume, applied particularly in order to ease the economic and financial plight of

> small cities with small territories and a restricted population

overloaded with debt and burdening their own people with liturgies and compulsory loans - a permanent source of civil wars, lawsuits and wars with their neighbours.

The incurable particularism of these minute subdivisions "endeavouring to live in economic self-sufficiency" was to Rostovtzeff the canker of the polis system.

> The rulers believed that one of the main reasons why the cities were poor and in distress was that there were too many of them.... They therefore tried to convince the cities of the merits of their remedy and to induce them of their own will and decision to carry out a union with their neighbours. In this they mostly failed, and there upon had recourse to compulsion under the cloak of benevolent guidence.

Only through compulsion, then, could the polis be induced to give up its individuality... Nevertheless Rostovtzeff put the blame for what he regarded as the unpardonable political and economic non-cooperativeness of the Greek coastal strip in Asia Minor squarely on the polis.

This judgment sprang from a one-sided approach to the economic nature of the polis. The agora, which today is falsely regarded as the germ of an institution capable of linking up with similar entities to a market system of limitless scope, was in its origin nothing of the sort. It was a creation of the polis which territorially walled it in. It was not born out of random transactions of unattached individuals whose collective attitudes eventually merged in the market as an institution in its own rights. Such a germination of markets, as anthropologists and sociologists have taught us, is unhistorical. Rather, they were the result of deliberate policies of a kind of authority that even in bush and jungle enters into the shaping of structured human behaviour. To expect the polis to relinquish its individuality implied among other things the abandoning of the agora which was its organ of breathing and nutrition. On the other hand, to expect the agora to expand in a fashion, which some fifteen centuries later the local market was enabled to do in an utterly different institutional setting, implies that an institution can transcend its given structural limitations.

Rostovtzeff himself may have felt this contradiction, for he introduced his argument with a well-nigh invalidating admission. The Successors, he wrote, tried in various ways to get rid of the particularly unsound and mischievous elements in the polis tradition

> though they never attempted to change the type of economic system established in the Greek city-states...

Yet short of that, nothing could avail.

This concludes our discussion of economy and polity in classical Greece. In justice to two eminent minds who, separated by two millennia, dealt in their own way with the subject of polis and chora, it is sweet to remark on the depths meet of this still unresolved controversy.

Rostovtzeff, in his appreciation of the Pseudo-Aristotelian Economica One summed up:

> ...at this time two types of economic and political organization balanced each other in the ancient world; that of the Oriental monarchies, represented by Persia and that of the Greek city-states. Each had behind it a long and glorious evolution, longer in the East, shorter in the West... Each endeavoured to extend its form of economic life to the rest of the ancient World.

Rostovtzeff, it would appear, was at this point very near to penetrating the historical issue of polis and chora.

Aristotle's encomium of the small sized polis has been under a shadow in modern times. He appeared to lavish praise on the irretrievable past at the very dawn of the great empires. But the polis, far from fading out, as modern critics appear to postulate, persisted for several centuries in the expanding Hellenistic universe, unchanged, and indeed, unchangeable as Aristotle had upheld with so much conviction, while the ancient empires readjusted their own methods at the hands of the new Hellenic rulers who continued to pour forth from the training centers of the polis.

If Aristotle may have failed to give the chora its due, he at least did not underrate the staying power of the classical polis, provided it did not grow in size.

III.

PALACE ECONOMIES FROM THE ANGLE OF MONEY USES

1. Sub-monetary devices in Mycenae

Michael Ventris, the decipherer of "Linear B", has boldly asserted the absence of money in the palace economy of "Mycenaean Greece". This term derives from the earliest excavation of Mycenae, in the Eastern Peloponnese, and comprises Pylos, in the West, together with Knossos, in Crete.

Mycenae, as we will briefly call all of Mycenaean Greece, flourished in the thirteenth century. Its palace economy was of an extreme type. For it may well be the only case on record in which a literate community eschewed the employment of money for accountancy.

Mycenae is then, of singular interest to the student of early money institutions. In the absence of "anything approaching currency", the actual means of accountancy employed in the Mycenaean palace economy may offer a clue to a very early phase in the development of money.

The economic historian of antiquity can not make use of the concepts of money, price, etc. inherited from nineteenth century market economies without a considerable refinement of these terms. 'Money', it is suggested, should be defined as "fungible things in definite uses, namely, payment, standard and exchange", while 'price' should be replaced by the broader term 'equivalent', which transcends markets.

Operational definitions of money take their start from a particular use to which fungibles may be put. Under Roman Law fungibilia are things quae numero, pondere ac mensura consistunt. Or, in terms maybe more acceptable to the economist, durable objects that are quantifiable, whether by counting or by measuring. The payment, standard and exchange use of such objects are defined in a manner which avoids any implicit concept of money creeping into the formulations. This requires sociologically defined situations in which the fungible objects are put to anyone of those three uses in an operationally defined fashion. Payment is defined as a handing over of fungibles with the effect of ending an obligation (always assuming that more than one kind of obligation can be ended by the handing over of the same kind of fungible.) The standard use of the fungibles consists in serving as numerical referents; two different kinds of fungibles, like apples and pears, that are "tagged" to the standard can then be added up or deducted. The exchange use of fungibles is the handling of them as middle terms (B) in indirect exchange, where C is acquired for A through the medium of B. "Being under an obligation", "adding up apples and pears" or "exchanging indirectly" are thus defined as sociological situations, while the manipulations of "handing over", "referring to, or tagging" and "exchanging twice over" are operationally determined. To state that money was absent in Mycenae strictly means/that none of these staples were handled in a situation and manner that then would amount to their use as payment, standard or exchange. Not even metaphorically, as in regard to the attractive brides of the epics, are in the Mycenaean tablets cattle named as a standard of appreciation. Apart from a list of small weights of gold, the precious metals are hardly mentioned, though small uniform objects of gold similar to Egyptian units of treasure were found in the Mycenaean Acropolis. Silver -- the term <u>chrysos</u> is of Semitic derivation -- hardly occurs in the tablets at all. Bronze is repeatedly mentioned as a raw material for weapons weighed out to the smiths from the palace, but otherwise occurs only once, and then not in a valuational context; prestige goods such as tripods serving as elite tool-money in the epics are absent in our accounts, as are also ornamental shells or beads. As to staples more commonly employed as money, such as barley in Sumer and Babylon, or cacao in pre-conquest Mexico, Ventris' unqualified negative settles the point. On the face of it, all this is surprising indeed. Yet its full implications can be gauged only if the scope of the accountancy is considered.

The authentic core of the Mycenaean economy was the palace household with its storage rooms and its administration which listed goods and personnel, landownings and small cattle, also assessed deliveries in wheat or barley, oil, olives, figs, as well as a number of other staples, and handed out rations. The rest is conjectural: Homer's nine towns that belonged to the king of Pylos have been found, surrounded by a considerable number of villages with their common land and peasant holdings. There were slaves, a class of dependent labourers, also soldiers and oarsmen, who were sometimes recipients of rations, which, however mostly went to women and children. Manufactures were carried on by craftsmen and artisans, many belonging to the palace, others supplied only with raw materials from there. The products may have been partly employed in trading for the palace. Yet the outstanding fact about the inventory and the accounts is and remains the complete absence of money. One kind of goods could never be equated with, or substituted for, an amount of other goods of a different kind. Accounts were strictly separate for each kind.

But how, then, was the palace's administration maintained over an economy of the extent of a good sized city-state?

The answer lies in devices which up to a point could substitute for money. A staple finance thus becomes possible which allows an elementary form of taxation without the intervention of money.

Staple finance is the dealing with staples on a large scale, involving inventories and accountancy, for the purpose of budgeting, balancing, controlling and checking. As a rule -- this must be clearly understood -- ~~this~~ required the use of money. This comes about with the help of equivalents that are set up between the staples and by using one or the other of them as a standard which thereby acts as money. Staple finance is always in kind, whether its accountancy makes use of money or not. But the absence of equivalencies reduces the handling of staples to a moneyless "finance". Only within one and the same kind of staple is then budgeting, balancing, control and checking possible. The vital operation of collecting goods at a center through the device of taxation is then performed almost blindly. The accounts fail to show the total burden that is put on the contributing unit, whether individual or village. It is not possible to say by how much its burden would be increased or diminished by changes made in any one kind. Neither is there a measure at hand by which to raise the taxes proportionately to an increase in population, or to maintain equity in the burdens imposed on bigger and smaller communities.

A fairly obvious remedy offers, still on a sub-monetary level, as long as the taxation in kind happens within an ecologically homogenious region. A composite unit for purposes of taxation can be here formed consisting of the same main staples in definite unchangeable physical proportions. Tax is then assessed according to the size of each village in multiples of this unit. The physical proportion which obtains between the goods in no way means that the staples can be substituted for one another in those proportions, the taxpayer, for instance, being permitted to deliver one kind of staples instead of another, in that proportion. Nothing of the sort was involved. But the totalling of each kind of revenue is made much easier by the composite unit. So is the adjustment of the tax to changes in population. Moreover, this should not be forgotten, some serious disadvantages of monetrization are also avoided. The chief requirement of a balance in kind is certainly that at any given point of time rations and other obligations that are due are actually available in kind. But any equivalency that has been accepted as a standard may act as an inducement to substitute one staple for another, whether in delivery or in handing out, thereby frustrating the basic purpose of the accountancy. Any assurance of "effective liquidity" would be gone. A composite tax unit avoids this danger.

"Linear B", the script in which Mycenaean accountancy was done, shows proof of just such a device. In two cases we have explicit statements of the physical proportion in which the composite tax contained the staples. One is shown in the Pylos tablets.

> "A number of townships are put down for a contribution of six different commodities, mostly so far unidentified. The scale of the total contribution varies for each town, but the mutual proportions of the six commodities remain constant at 7:7:2:3:1.5:150..."

The other occurs in the relative sizes of the entries in the Knossos tablets. In one case these

> contain lists of four commodities one of which Evans identified as the horns of <u>agrimi</u> goats for making composite bows. Their amounts conform, with rather wider variations than on the Pylos tablets, to a ratio of 5:3:2:4.

Yet we repeat, nowhere is there an equivalency, nor anything approaching a standard, and, <u>a fortiori</u>, money.

A sub-monetary device acts in a purely operational fashion. Complex arithmetical results, which in the economic sphere we are used to gain through calculations in monetary terms, appear in early society to have been attained with the help of operational devices without an intervention either of money or of reckoning.

In the light of these considerations we may try to penetrate further into the earliest history of money.

Since times immemorial wheat was distributed in the Indian village community among the different claimants -- tillers, craftsmen belonging to their respective castes, village officials, last not least, the landlord and the prince -- by the simple means of handing out grain from the heap in a certain sequence which combines portions of absolute amount with a number of unit measures that go to each in turn. The traditional sequence is extremely intricate. Yet the method is of utmost simplicity. There is no need to know how many units the heap contains, nor to how many units each claimant has a right, nor how much he actually gets, for once the heap is gone such questions are rather pointless in view of the certainty that each received his due, neither more nor less. No money and no reckoning enters into the operation.

Another instance, this time regarding trade, and very different from that of the grain-heap, is indicated in passages from Ez. XXVII, and in Aristotle's "Politics", some 250 years later. The Old Testament prophet describes the many-sided foreign trade carried on by Tyre, Queen of the Seas, while Aristotle offers an analysis of the role played by money objects in long distance trade. Ezekiel speaks of the traders as "reckoning" one another's goods in their own, while Aristotle says that money sets the limit and the pace to trading. They both appear to have had the same operational image before them. He who sells a cargo of grain from his ship's bottom, sheep from the corral, or oil from the store beneath the temple makes his ware come forth from the stock - unit by unit - and makes his trading partner move his goods at the same pace in the opposite direction - unit for unit - until one or the other stock is exhausted. Again the method could not be simpler. There is no need for any previous knowledge of how many units of goods either of them possesses, nor -- if the rate happens not to be 1: 1 but some other rate -- how many units of the other's goods each of them is supposed to receive, nor even how many they actually received, as long as the rate at which the operation mutually progresses is the agreed one, since both necessarily received the right amount at whatever point of time the transaction may have been discontinued. And, as in the former case, neither money nor calculation was required.

These two instances of sub-money devices stem from very different situations: The one may have been common in Pharaonic Egypt with its storage economy, the other in the Fertile Crescent which could not survive without an extended long distance trade. The one belongs in the realm of redistribution, the other in that of exchange.

Surely it is more than a coincidence that "Linear B" deviated from the original "Linear A" precisely at a point which mirrors in a striking fashion this type of difference. "Linear A" was a fairly primitive script of the Minoan speaking natives of Crete (a language still unknown to us). "Linear A" was continued and developed by the invading Greeks in "Linear B", for writing their own language and with a greater wealth of syllabic signs and ideograms. These changes were accompanied by just one other innovation which can be hardly unconnected with the shifting from the native Minoan economy to that of the Greek newcomers, namely, to an entirely different notation of fractions. While "Linear A" used a numerical notation akin to the Egyptian script, "Linear B" altered this numerical notation to the wholly different system of fractional measures, exclusively used in the Fertile Crescent. The numerical notation employed figures, such as 1/2, 1/4, 1/3, 1/6, or 2/3, while the fractional measures carried names similarly to hundred weights, pounds, and ounces, or bushels, gallons, quarts, and pints. The simultaneous change-over to Greek and to fractional measures happened about the middle of the second millennium at a period when redistribution of grain was still dominant in Egypt and trade was on the rise between Mainland Greece and Western Asia. It seems obvious that the Greek seafarers were more interested in trade with the East, than had been the Minoan speaking natives whose script they borrowed, and whose economy resembled that of Egypt.

For an analytical study of early money the disentangling of fractional measures in "Linear B" accomplished by E.L. Bennett Jr. should therefore prove a most promising beginning. It may, as he suggested, throw light on the early history of the Mycenaean Greeks.

It certainly seems to prove that among the multiple origins of money we must also list manipulations of an elementary character which do not assume arithmetical operations whatsoever, not even counting. The composite tax unit, that is present in traces in the Mycenaean tablets, seems to have been such a sub-monetary device.

2. The prestige sphere in staple finance

The first to call for a comparison of Mycenae with the palace economies of West Asia was Michael Ventris himself. Again and again he named Sumer, Ur, Babylon, Assur, the Hittites and Ugarit as parallel instances, not omitting Alalakh from the list. Our own survey of Alalakh, restricted to secondary sources, is in line with that suggestion. To our surprise we found that the differences between Mycenae and Alalakh in regard to money uses were at least as worthy of note as the general similarities between these two palace economies. Ventris had naturally centered on the redistributive character common to palace economies; the role of money had not yet moved into the overall picture. Otherwise he could not but have remarked on the singularity of Mycenae which knew not money - a fact Ventris was first to have stated - in contrast with the West Asian civilizations which employed money in more than one way.

Still another surprise was in store. Alalakh which at first glance seemed monetarized as much as its Mesopotamian partners, on a closer view turned out to resemble moneyless Mycenae with its Greek culture and Minoan script, a thousand miles away, rather than its own Eastern neighbours, whose cuneiform writing and Akkadian official language were first cousin to Alalakh.

Several questions arise. Was the original assumption of Alalakh's monetarized accountancy well grounded? And if not, how should the evidence be interpreted which seemed to point in that direction? Secondly, how did then its palace economy function? If Mycenae's hidden strength lay in sub-monetary devices, what lesson could be drawn from Alalakh?

Alalakh was a small but long-lived kingdom in North Syria, whose external relations were both from the political and the economic angle far from simple. Its economy and even more its finance reflected up to a point the complexity of these conditions.

Sir Leonard Woolley, the excavator of Alalakh, tells us how the city lay in that crowded stretch of the Fertile Crescent where in the second half of the second millennium the Hittite and the Egyptian great powers met. The Hittites had once raided Babylon and eventually defeated Egypt in the battle of Kadesh, on the Orontes. A fourth power, Mitanni, with its mainly Hurrite population was mostly wedged between the Hittites and Babylonia. Alalakh was in the eighteenth century closely dependent upon the city of Aleppo. (In the fifteenth century Alalakh appeared as a semi-independent state). The key to this overall situation, in which Alalakh benefited from the balance between the great powers, was its geographical location. It formed the hinterland to the port of Al Mina, at the mouth of the Orontes, which together with its southern neighbour on the coast, the port of Ugarit, represented a vital access to the Mediterranean for the v/ inland empires, whether the Hittites, Babylonia or Mitanni. Ugarit was moreover Egypt's maritime point of access to the caravan routes of the Fertile Crescent. This configuration resulted in the middle of the second millennium in a coastal area of relative peacefulness. The inland empires traditionally held off the coast for fear that the "riches of the sea" cease to flow through militarily occupied ports; they preferred most of the time to exert but a mild pressure in the direction of the sea, agreeing to keep the coast unoccupied and the caravan roads to it open, or maybe even tacitly arranging for zones of influence. Such a solution might for instance leave (southerly) Ugarit in the Egyptian, (northerly) Al Mina in the Hittite zone, while allowing the eastern powers, Mitanni and Babylon, transit to either of those western ports. Hence the network of international treaties by which a militarily weak and semi-dependent Alalakh may have secured its position in the midst of rival empires.

In regard to staple finance and trade the situation of Alalakh was, then, in all probability more complex than that of the Mycenaean cities of Pylos, Knossos or Mycenae itself. Records show a flow of silver during the eighteenth century, large amounts of annual regional revenue collected in silver and passed on to the higher administrative authorities; royal visits, bethrothals and other ceremonial occasions requiring a display of valuables; a drain on precious metals exerted by the temples; sums paid out as awards within the related ruling families; expenses of the local prince, particularly for raw materials to the "gold smiths" (mostly dealing with silver); numerous other requirements of diplomacy and ettiquette; purchases of land-tracts comprising many villages in the course of adjustments involving exchanges of territory between contiguous administrations; caravan trade in transit, apparently requiring the military protection of the nomadic chiefs. All this involved a movement of the precious metals, whether acquired from foreign mine-owning rulers or indirectly through tributes and taxes. Such was the eighteenth century picture to which our data refer.

We are here concerned, of course, not so much with the economic as with the financial aspect of Alalakh. According to D.J. Wiseman the silver shekel acted in the eighteenth century as "true currency" and as "primary means of exchange". However, it seems very doubtful to us whether the level of accountancy in Alalakh was actually so much higher than was that of Mycenae, where money was altogether absent. Only in the prestige sphere, so it appears, was silver widely employed and certainly established as a standard of account. Outside of that sphere accountancy was 'in kind', each species of commodity being totalled separately (as in Mycenae). Rather, the evidence seems to point to an intermediate state of affairs where a prestige sphere, accounted in silver, formed the core of the staple finance while the substence sphere was accounted 'in kind' without the intervention of money.

The sixty to seventy texts mentioning silver shekels would then appear satisfactorily explained by the concept of prestige goods. Silver being treasure, was employed for uses that befit prestige goods and expenditures made for such purposes were accounted in silver shekels. In other words: Since the prestige sphere -- sacral, royal, diplomatic or an adjunct to top ranking civil and military bureaucracy -- was the traditional field of treasure use, accountancy in silver shekel was the given form of book keeping in this sphere. The frequent mention of silver accounts merely proves the presence of important hoards of silver in the possession of king, temple or treasury, and of a rigorous accountancy in regard to treasure.

Admittedly, this leaves much unexplained. The use of silver shekel as money of account in the prestige sphere would, as a rule, assume the existence of some silver equivalencies in that sphere. Yet with a very few unimportant exceptions no equivalencies in silver are extant, nor can such be implied. The main group represents physical amounts of silver given either by weight or as objects to which the silver served as raw material and which are than listed by weight in terms of shekel. Next in importance, though not in number are yearly totals of tribute amounting to over one thousand and over two thousand talents respectively, ie., to several millions of shekels each. (These two items are from fifteenth century tablets). The third group are shares in the great king's booty, in royal inheritances, in awards as between royal relatives; a fourth large group are plain gifts to gods, sovereigns and other important persons, with no counterpart in evidence. A fifth group consists in the price of villages and territories bought from neighbouring sovereigns. In striking contrast to all these massive transfers of silver without any equivalents, there are small conventional items such as tips to servants, perhaps according to their master's rank, a day's provisions to a messenger, or the fodder for his mount, and similar small expenses. The origin of these none too impressive equivalencies is obscure. However, they largely seem to derive from the 1 shekel of silver: 1 PA of grain, to which we will return presently. Finally, there is a group of silver items which appear to belong to the subsistence economy of the palace itself. An amount of 10 shekls goes as a 'loan' to craftsmen and artisans engaging them to lifelong service with the palace. Employment with the palace seems to have conferred status, in a modest way. A distinctly larger loan of 20, 30 and 60 shekels appeared to go to persons of a higher status, distinguished by their patronymic, mention of the 'family', or by referring to their sons by name. In still other cases either apprenticeship or a supervising of training appears to be referred to. In the case of these 'middle class' loans there is a curious practice of lending a round sum plus 1, such as 21 or 31 shekels.

All this referred to silver accounts. But by far the larger number of items concerned staple finance in kind, such as deliveries to the palace and rations handed out from there. Nevertheless, no equivalencies either as between the different staples nor in silver can be traced, according to Wiseman, with the exception of 1 shekel of silver: 1 pot of best beer: 2 pots of emmer (No. 324). Another exception is the equivalent of 1 shekel of silver: 1 PA of grain. This is of course the oldest and best known equivalency of the Cuneiform civilizations of Mesopotamia. In the light of what was said above, it might not be too rash to infer that it expressed the status relations of two potential currencies, namely, a currency of the prestige sphere of the ruling classes (silver), and one of the subsistence sphere of the common people (grain).

Indeed, it seems well possible, that similarly to the <u>prestige</u> function of treasure, which introduced the silver shekel into all records of prestige activities, the fact of status (another building stone of archaic society) may enter into broad sectors of economic life as a quantifying factor. In Aristotle's time it was still possible to argue the just price in terms of producer's status. Some quantitative facts of Alalakh economy bears traces of such a connection. That deliveries and rations may reflect status seems to us in the nature of things. So may some equivalencies have reflected social stratification, in a customary way.

In conclusion, the notion of a cultural continuum of money uses might be suggested, ranging from the zero point of Mycenae to the near saturation point of the Mesopotamian empires of the middle of the first millennium. Palace economies, big and small, Asiatic, Egyptian and European may be found to have possessed organizations that were mainly distinguished by the manner in which the various money uses were institutionalized.