Even a cursory reading of the short sketch of history of India from the pre-vedic to the later vedic period that we have given in the last chapter will show that society did not remain static; that it has changed sometimes slowly, sometimes rapidly from one age to another.

The period of Indian history we have selected here for special study may be divided into four distinct phases of culture generally known as Ages: (a) Palaeolithic; (b) Neolithic; (c) Chalcolithic and (d) Iron. Palaeolithic or old stone age is characterised by rough stone implements of different sorts and by the fact that man became a conscious maker of tools, though he was at the food-gathering stage. In the Neolithic age which is again sub-divided into micro and megalithic phases, man was partly food-producer. The Neolithic Age may be said to have begun about 7000 to 6000 B.C. The chalcolithic Age, often sub-divided into copper and bronze phases, has witnessed great advance of human civilisation on account of the knowledge of metal, the invention of the art of writing and the beginning of city civilisation. The knowledge of iron came late, not earlier than the fourteenth century B.C.; and its importance in human civilisation has proved so great and revolutionary that its introduction begins a distinct phase of culture called Iron Age.

The Negritos may be said to have belonged to the Palaeolithic Age, and are still the surviving representatives of that age. The Proto-Australoids belonged properly to the Neolithic Age and were responsible for the neolithic development of the palaeolithic culture of the country. The Harappā culture belonged to the chalcolithic Age. This assertion is based on the fact that no iron has been found in Harappā sites. Did the Rigvedic Aryans belonged to the chalcolithic period? We are not sure. The word "Ayas" does not render any definite meaning; it may have been used for all metals—copper, bronze or iron. Iron may have been known but may not have been widely used. But the post Rigvedic Aryans belonged to the Iron Age. The Brāhmans may be
It may have been noticed that Ages distinguished above are made on the basis of the materials used for making implements. The idea behind such division is that the civilisation of one Age distinguishes from that of another on the basis of the materials used for making tools, materials used having a supposed causal relation with the civilisation developed. This basis of division does not seem to be logically very sound. Both the Palaeolithic and the Neolithic Age used stone as material for making tools, though they differed in variety, shape and finish.

It thus warrants us to seek for a more scientific approach to the problem. The choosing of a particular type of material and forging it into suitable implements is a question of technology, but the tools indicate purpose of production. Thus it can provisionally be said that technology helps making tools, and tools determine mode of production on which are based the pattern and nature of civilisation of a given epoch. Thus the study of the mode of production, factors of production, gives us a fair estimate of the civilisation of a given age. This approach has a great advantage for the period of our study because it gives concreteness, a sense of reality to what otherwise tends to become acts of pure conjectures for want of documentary and archaeological evidences. The chronological history of India does not actually begin until Alexander's invasion. This does not mean that we cannot reconstruct the cultural history of India prior to that date. In this great adventure the mode of production or economic method, if we may use the term, will greatly help us.

In this chapter, then, our purpose will be to closely study the process of the development of the mode of production and to see to what extent this helps us in forming correct estimates of the nature and form of civilisation in the different ages mentioned above, and also to see to what extent changes of civilisation or from one age to another may be causally related to the changes in the mode of production, that is, to see...
if the changes in the mode of production can be regarded as necessary and sufficient cause for changes in the social life. In doing this, we need not be dogmatically guided by the doctrines of any school, keeping in mind that many past masters like Plato, Aristotle, Karl Marx and others have repeatedly emphasised the great importance of economic factors in the study of the growth, development and decay of civilisations. In recent years we have grown accustomed to giving importance to economic factors in the studies of the different modern social phenomena. But we shall try to see if this applies equally well to explaining facts of societies of India's early past.

The thousands of palaeolithic implements and weapons that have so far been collected from almost all parts of the country are the only remains of that culture. No cave dwellings or skeletal remains of the people who once wielded these implements and weapons have so far been discovered in many parts of the country. These tools and weapons were made primarily of quartzite, though other hard stones were also used when this particular variety was not available. These implements have been divided into ten classes, namely, axes, arrow-heads, spears, digging tools, circular or semi-circular hurling stones, choppers knives, scrapers, cores, hammer stones and strike-a-light. On the analogy of the Peking-man, it may be said that the people of this culture knew the art of making fire. These tools were heavy and were of crude workmanship.

From the study of these tools, it follows that these people did not know the art of tilling land and were hunters and lived on flesh, fish, fruits, roots, tubers and grubs and other products of nature. They were communities of food gatherers, living in caverns, under the shades of big trees or other natural hide-outs. They did not build houses for themselves or tombs for their dead; the idea of the sanctity of the dead body was perhaps still to be developed. It cannot be said that they did not eat human flesh; some skulls in the cave of the Peking-man show clear signs of the brain being taken out. Some ancient tribes of the Andamans have still retained this habit. It can
not be assumed that the victims of the raids yielded without terrific fits. Fortunately the early men gave up the habit for some unknown reasons.

They must have lived in marginal forests near rivers or streams but their abodes could not have been far away from hilly tracts because they needed stones. They seem to have avoided densely forested regions because of scarcity of water or placed above 2000 feet altitude where both vegetables and game animals become rare.

It is difficult to characterise food-gathering society of the old stone age, though some fairly approximate conclusions about it can be drawn from the analogy of the fast-vanishing tribes of the food-gatherers who still live in various parts of India. The Kathkaris of the western ghats, the chanchus of Andhra, the Mundas and Oraons of Behar are hardly out of food-gathering stage, though the modern civilisations is trying hard to bring them within its pale of sophistication. Their backwardness, poverty and ill-health can be explained by their persistent refusal to take to tilling land and to develop the habits of fixed ways regulated by the needs and norms of civilised life. The lure of freedom unbound in the wilds with a guarantee of minimum supply of food naturally produced was sufficient reason for their having cultivators' way of life. They were a good deal justified in ancient India when the greater part of the land was covered with heavy forests that abounded with animals and birds; fishes were plenty in rivers. But the bountiful nature gradually became niggardly, the cultivators along with the growth of population and the advance of civilisation cleared greater part of the forests, and the life of the food-gathering tribes became precarious as the days passed by. Already in the British period some of these tribes were declared "Criminal Tribes".

From what has been said above, we can imagine the precariousness of the life of the tool-making food-gatherers in the old stone Age. They were almost entirely dependent on the bounty of nature which is proverbially whimsical, sometimes lavishly bountiful, more often unreasonably niggardly, Storage of surplus food
was hardly possible in those days especially because of the hot climate of India. In this respect, the neanderthalmen of northern Europe had and the Eskimos still have an advantage over their counterparts in India of the past who could hardly use snow to store up their surplus meat or fish. The eating of rotten meat and putrid fish is dangerous to health. The Totos of Jalpaigury district in North Bengal suffer from a type of sore because they eat such meat and fish boiled in water. The skeletal finds in soutrean gneves in France show that not more than ten per cent of the population there lived more than forty years, the neanderthal men were more short-lived; in the Peaking-man's cave out of forty men, fifteen died before they were hardly fourteen. Scarcity and bad quality of food consumed, dangers and diseases, absence of knowledge about medicine and hygiene must have been the cause of early death and stunted growth; life was doubtlessly uncertain and full of hazards. There is evidence to show that both longevity and growth in the neolithic period increased with increased supply of better and more food-stuffs. Technological improvements, increasing food supply and anthropometric changes can be shown to be functionally related one to the other; intellectual ability may not be an independent function of food supply. Man had to march many thousands years before they could learn the art of cooking and of preserving food with salt and inbaskets, skin-bags or earthen pots. Then not all sorts of food could be preserved. The early man could not therefore acquire more food than they could consume immediately or if he did, he would have to consume it fairly soon. All this meant that he had to keep his day busy gathering the food he needed. This was certainly not good for intellectual activities and social progress. The social advance requires that at least a section of society must have leisure enough to think and work for the general good; and this is possible only if a good surplus of food is produced which can be preserved. The technology of the food-gathering society was not conducive to satisfying these conditions. They had to wait many thousands years before the next civilised phase could be ushered in.

The life of inevitable and persisting scarcity that we have described
described above gives the lie to those who are prone to romantical
-ly describe the early man as a noble savage free from all vices
of civilisation. It is only a chronological perversity to believe h
that our long forgotten ancestors once lived in the Satya Yuga XIX
when everything was the best; if any such golden age is realis-
ble it must be realised long many years hence when economic condi-
tions are satisfied. The ideal of communism, as the Marxists belie-
eve in, which promises unrestricted distribution may be realised
if miraculous technological development turns economic into free
goods and services. People often speak of the primitive commun-
ism as though it were an edylic state in which primitive men free
-ly cooperated to produce and shared all things alike. Rousseau
was led astray into believing in the simplicity and innocence of
the noble savage and to lay the responsibility for our $a^s and
miseries on the progress of civilisation at least partly by the
discovery of the caribbean man in the state of nature by chris-
topher columbus. As a matter of fact, man was constrained to dis-
cover that his liberty lay in overcoming the bondage to nature,
and the progress of civilisation implied the gradual process of
overcoming. And freedom realised in any epoch closely corresponds
to the economic development made in that epoch. The social life of
the early men in the old stone age apply bears out this truth
which we can ignore at our peril. The exigencies of the time required
men to live and work together; it was a necessity arising out
of the law of self-preservation, a big animal, say a mammoth could
not possibly be hunted down and killed single-handed by a solitay
man with the kind of arms he had at that age. Most probably this
necessity of being together for life in the long run created in man
a natural instinct which still urges him, transferred hereditarily to
seek the company of others which the idealist thought of as the
basis of society. The theory of Thomas Hobbes as well as of John
Locke was mistaken if they believed that the first society of
men resulted from an original contract among them; at no time
has man lived without some form of society however unsophisticated
and uninvolved. Yet to our surprise, we see the early men lived
in small families or small isolated groups that moved from one pla
place to another in search of food. Only in a later period, in the upper old stone age, people learnt the value of community life and cooperation on large scale, lived in large groups, which were perhaps combinations of many small families. In Moravia in Czechoslovakia the excavated camps of an early people show signs to believe that they lived together in large community; perhaps they took meals from community kitchen.

In the neolithic period much technological improvement can be surmised from the very small tools which also characterise the upper phase of the old stone Age. These microliths that show considerable degree of skilled workmanship are found all over India, except in the ghanges plains and the region north to them, though the central and south India specialised in them. It is believed that these very small tools were parts of composite tools made generally of bones or wood. Bow and arrow was invented a bit earlier in the Middle stone Age. People of this Age seem to have used bow and arrow, spear, fish-hook along with other traditional implements, also perhaps canoe. The existence of canoe can be guessed from the skeletal remains at the microlithic Langhraj camp in Gujarat. The skeletons bear Mediterranean and Vedoid facial features. The vedoid came from the south-eastern Asia where Austric-speaking people were the author of the invention of canoe. Whether the vedoid came with the canoe or not, the Australoids certainly introduced canoe in India.

From the bone remains at the camp, it can be easily guessed that these wielders of microliths were hunters who killed cattle, rhinoceros, bharal, deer, pig, horse, dog or leopard, tortoise and fish. But they did not domesticate animal or cultivate land. They used limestone hammers to grind corns, perhaps of wild variety. They buried the dead laying them head northwards.

Thus we see that the introduction of microliths did not indicate qualitative change in the social organisation, though it undoubtedly indicated improvement in the scale of production because of the better technology now at their command. Microliths were
used probably as arrow-heads with the help of which he could now shoot down birds. His dish was now richer, and was presumably made of roast meat, fish or bird deliciously combined with ground corn, fruits, nuts, roots and other vegetables and honey. Perhaps a dish of salad prepared from Grubs, cucumber and the like.

These higher technology and better standard of living must have been related to some orientation of their social organisation and cultural activities. It is not unlikely that there was a link between the microlithic industries in the central and South India, in Kenya in the eastern coast of Africa and those in various parts of Europe. In this connection we may take special note of the fact that the microlithic industries do not occur in the eastern parts of India, and of the Mediterranean features of the skeletal remains in the Langhraj sites. People in these days would often move from one part of the earth to another carrying with them technical skill and expertise and mingle with peoples in other parts of the earth, causing not merely mixture of blood but exchange of technical knowledge also. It is not improbable that the microlithic culture of India was gradually and organically developed from the Middlestone Age as at Adamgarh in central India. But there are many sites which obviously began it on the bedrock. It is likely that the microlithic culture in India owed much to different races from outside. The existence of different races side by side and exchange of ideas and technology must have contributed to the development of every society in the Late stone age which is reflected in the fineness of the tools they used. How far the art of stone-cutting improved is clearly shown by the fine tools like burnin with the help of which a small piece of stone could be shaped at will, notches could be put on edges of the blade both sides. They could also work on wood handles on which flint blades were set with some adhesive in order to make composite weapons. It seems unlikely that the same person did all the works himself, and had to be skilled in all the sciences and arts; we may not be entirely unwarranted to assume some sort of division of labour and specialisation of functions, in however rudimentary form.

Carpentry, cutting and chopping of engraving on wood, making
of stone tools of various shapes and kind, hunting and gathering of other varieties of food, perhaps making of huts of leaves and twigs away from caverns or other natural hid-outs; all these and many other works could not have been done by one and the same person all the time. Besides, efficiency of labour was low, since it functionally depends on the equality and amount of capital used. From this we may conclude that either the tribe lived as a family, members doing normal works separately or there developed a system of exchange of goods and services between families. Both the alternatives are possible if we may draw conclusion from what is known about peoples of Europe, the Middle East and China of the same culture/age. In great hunting expeditions or in wars of vendetta the whole tribe had to be organised; intra-tribal disputes cannot also be ruled out. All this required the tribe to be guided, controlled and directed by a leadership, active, assertive or merely nominal; though the undeniable fact remains that none of the palaeolithic graves studied in Europe show clear signs of the presence of the tribal chief or any other personage of similar status; nor do these reveal indications of large-scale warfare. One probable explanation that easily comes to mind is that in that hoary past ideas of royal pomp and magnificent glory did not begin to haunt human mind. Consequently, none thought of making elaborate arrangements for their chief; they were all comrades in arms led by the Chief among the equals. A close study of the social patterns of the autochthons of Australia is a clear pointer to what has been suggested above. The whole life of the members of a tribe is definitely determined by customs which not even the chief is allowed to ignore or violate; violation of these customary is severely punished by the chief who wants to see that tradition rules high in the tribal life.

The late stone Age society was gradually yet steadily preparing itself for containing within its substratum the neolithic revolution which in a whirling sweep brought man at the door of the modern civilisation. The so-called neolithic revolution was ushered in by a series of epoch-making discoveries and inven-
inventions which fundamentally changed the productive system of society and consequently the super structure. Special mention must be made of agriculture, pottery, weaving and domestication of animals.

When and how the neolithic civilization first began in India cannot be determined with any degree of certainty. This culture was introduced in India about 4000 B.C. in the western part of the country, in Baluchistan, the Punjab and in the region adjacent to Iran. About eighty such sites have so far been defined in India. We have little interest in the problem whether this culture was indigenous, developed in this country or people brought it with them from some unknown foreign countries. We seem to have developed a biased tendency to show that everything good was brought into this country by the foreigners. Our primary concern here is to analyse the effects produced on the social superstructure by the changes in the modes of production introduced in the various well demarcated periods of history.

Though the term "The Neolithic Age" is related to a new stage attained of stone culture, it could have been better designated as agriculture age, since agriculture invented at the beginning of this age still remains one of the fundations of modern civilisation and its importance in changing both the form and content of civilisation can scarcely be exaggerated. Be that as it may, the people of this culture found out a method of polishing their tools by rubbing them up on the surface of another piece of wet stone: these rubbed up implements would then become very effective and reliable, for example, the edge of an axe thus polished would not be made blunt at a few blows at the wood. These when fitted to a haft became a very useful tool for the neolithic man and helped him later to make such things of far-reaching importance as wheels, boats and wooden houses.

He now made various types of nicely adapted tools made of fine-grained dark-green trap far harder than quartzite, even though they did not discard quartzite basalt, slate and other varieties of stone altogether. The great strides they now made in producing capital goods stood them in good stead and they could now break
through many hurdles to attaining a more secure and comfortable life, a higher standard of living, a life less dependent on nature.

Now let us turn to agriculture, the most important of the fundamental inventions made during this period. Stephen Fuchs observes (The Aboriginal Tribes of India, p. 9) "The start of cultivation on the sub-continent appears to have been made in Baluchistan (Pakistan), Mill Ghul Mohammed near Quetta, Buna Ghundai in the Loralai Valley, Amjira and Shab-dars in the Surab Valley and Mandigak in south east Afghanistan are the sites which have been excavated and yielded typical Neolithic stone-cres and pottery but no metal tools. The stone tools are of great variety but blade prevail. They must have been used for the harvesting of crops. Arrow-heads suggest that the population still hunted, bone awls were used for stitching, grinding stones for grinding grain, and ringed stones as weight for the digging stick.

The people also fashioned pottery of various sizes and shapes, often painted, and terracotta figurines of mother goddess obviously, and of humped bulls.

The inhabitants of these stone and earthenware appear to have been semi-nomadic; they built themselves wattle houses and domesticated sheep, goats and cattle. These are evidently pictures of villages of late neolithic period, since the villages differ from general modern Indian villages by the absence of metal ad plough. The people who cultivated land with hoe and weighted digging stick, fashioned pottery of various sizes and shapes, built themselves houses of wattle and daub, made a large variety of stone tools, domesticated animals, were semi-nomadic people partly still at the food gathering stage and sensitive to the religious sentiments. At this late stage of development we may expect that they possessed loom, shuttle and spindle to weave flax into linen cloth. If they had not already possessed it, they were soon to have it. Like many things else, cloth was first made in the villages of the Middle East, marks of cloth on earthenware are found in Zaroe village in Iraq. They made a kind of coarse cloth of flax which they cultivated along with wheat and bar-
barley. The earliest sample of cloth of about 4500 B.C. has been found in Egypt. They also used wool and silk. But cotton cloth may be said to have been a gift of the Harappan culture. Stuart Piggot says (Prehistoric India, Pelican Edition P.156), "By later historic times in that country (Mesoopotamia) Indian cotton cloth was known under the name of Sindhu, and this in the form Sindon passed into Greek." Thus from very early times Indians have been growing cotton and making cloth of cotton. A people that devised and could successfully wield a very complicated weaving machine must have attained a high level of civilization. We may note in passing that the neolithic people used awls to prick holes in leather and darn clothes.

But of all the major inventions of the neolithic period the art of making cloth was the last to be made; agriculture came first. Agriculture naturally began in a very humble way, as kitchen gardening most probably, by the women-folk for the production of fruit and vegetables, they still do it in the country-side and produce pumpkin of different varieties, bottle-gourd, cucumber, brinjal, chilli, banana and other fruits and vegetables. But when they wanted to produce cereals, wheat, barley, rice, millet, maize and pulse, they needed much more land and had to work on a large scale. They must have seen these cereals growing wild and used them as food. But the more important truth they had now discovered was that when carefully cultivated they yielded more and better crops. But the preparation of land for cultivation was the greatest problem; the greater part of India was then under dense forests of banyan trees which had grown for hundreds of years and it was not easy to clear the land of heavily grown grass with that kind of stone implements in their possession. Besides, there was the problem of irrigation, artificial canal and tank irrigation being still then unknown. They were therefore compelled to choose plots of land which were not densely covered with forests and which were on the bank of a river. On such plots of land they worked for the cultivation of grains with the help of digging sticks and hoes. In rain-soaked land furrows could more easily be made by drawing the sticks, and saplings could be planted there. One—the male members of the family
bad cleared the land of the scrub by thrashing and burning them down and loosened the ground with curved wood sharpened at one end, later on with stone spade, the rest of the works of cultivation could be entrusted to the womenfolk. They could plant saplings, sow seeds, remove weeds with hoe and harvest crops, thresh them on blocks of stone and grind them into flour on the grinding stone and prepare food. Entrusting the whole business of agriculture to the womenfolk, male members could engage themselves in heavier and more hazardous works like hunting, cutting trees, chopping timber for firewood and the like. Daily round of works could now fairly be divided between the male and female members of the family, the old men and children of the family giving a helping hand to the women who had so much to do from the early morning to the time at night they retired to bed. When they later knew the art of making pottery and weaving cloth, works of the women were only added to. Woman was really the house itself. Among the Santals and the Khasis of Khasi-hills the major responsibility for household works and agriculture lie on the womenfolk, male members helping them when called upon to do so.

If women were to give us agriculture, it is from hunters that we may have learnt domestication of animals and birds. In course of time, may be in the Late Stone Age when they grew up to be skilled hunters, men of older days very thoroughly learnt the art of catching animals, big or small, and birds of different kinds by laying traps. Dogs had already become members of the hunting party and stored-up food for the camp-mates. The animals and birds that were thus caught alive were not always immediately used for food but were kept captive for future use. It saved men much trouble of storing raw meat up for future use. On keen observation they soon found out that some of the captives loved freedom too much, while others were not averse to human company and yielded to affection. Domestication of animals began. The Austrians, as we have already noted, are said to have domesticated elephants and many of our well-known domestic fowls. Observation also fairly soon taught them the art of breeding animals and birds at home. Thus herdsmanship in course of time, though a poor alternative to agric-
agriculture, became a gainful enterprise, and saved men the trouble and uncertainty of hunter's life. While agriculturists were both tillers of land and breeders of animals, some people gave themselves entirely up to breeding animals and became nomadic herdsmen. The rest preferring palaeolithic freedom became neither breeders of animals nor the tillers of land, and remained from generation to generation the food-gatherers. These people are now to us a social liability, but we inherit the civilisation our forebears built up as tillers of soils and as cattle-breeders. What has happened to those proverbial hordes of herdsmen who moved from one part of the country to another following pasture land and source of water? This question we shall try to answer in the paragraphs following.

The domesticated animals and cultivated land taken together brought much comfort to the farmer's family and relieved much of their dependence on the caprice of nature. The tilling of land gave them fruit, vegetables and cereals and they could kill the animal bred at home for meat, hide, wool and bones. But these two meagre sources were not most probably sufficient and had to be supplemented by gathering from what nature produced in forests and water, that is, by hunting and by gathering fruit, vegetables, honey etc. This latter source certainly in course of time became less important in the farmer's life, and he gradually became a true farmer and devoted himself completely to farming and animal-breeding. But this was possible after a series of inventions had been made. He had still to depend for the transitional period, no doubt, partly on food-gathering because the other two sources were as yet very inadequate. The thrashing and burning cultivation was really a very inefficient method, and much to his charge in he discovered that after a few turns of cultivation the plot of land very badly declined in fertility and had to be fallowed for some years before this could again be taken up for cultivation. This difficulty could be over come only after he had learnt many centuries later the use of manure, artificial watering and deep ploughing with metallic ploughshare and draught animals. Nor could they eat up the few animals they had somehow secured to make up the defi-
deficiency of the supply of food. They could not go back of their previous life either; to begin with, they had almost forgotten it, and secondly, the taste of case, comfort and peace that they had enjoyed would not let them do so; the standard of living attained has a compelling force on the choice we make. The arrival of pottery, the result perhaps of a pleasant surprise, proved to be a source of many benefits to the farmer’s family. The science of pottery presumably remained unknown till the end of many centuries to follow but the highly embellished polychrome pottery of varying size unearthed so far in many parts of the world shows clearly that the ancients well mastered the technique of making pottery. Apart from the question of artistic finish the utility of the earthenware proved overwhelming for a neolithic household until well after metal had become an inseparable part of civilisation; even to day its utility is not exhausted for the poorer section of our people. Stone utensils were no doubt nice, but the introduction of earthenware greatly facilitated carrying of and boiling water, cooking of food, storing up grain and other similar purposes; untanned hide and stone materials suffered from certain inherent defects. Besides, earthenware cost less labour. The introduction of potter’s wheel at a later stage greatly helped the making of earthenware efficiently and at a far lesser cost. But potter’s wheel created different set of problems, those related with commodity production which we shall find it necessary to deal with later on.

Let us now more closely look into the way a self-sufficient neolithic farmer’s family was now rather compelled to live as a result of the economic effects produced by a series of new inventions.

a) The introduction of agriculture made him partly at least a producer, that is, he gained to that extent freedom from the vagaries of nature. The time thus saved could now be used for other purposes, higher, better and more creative or for greater enjoyment of things at his disposal. He now lived in a house more comfortable, had clothes to make him look better and to protect his person from the elements, ate more nutrient and delicious diet.

b) A revolutionary change took place in the life of the house-
wife who now found herself occupying the focus of the whole process of family life and doing almost all the house-work that included, as we have already seen, doing various works of agriculture, making pottery, weaving cloth, pressing oil seed, giving fodder to cattle and looking after other domesticated animals and fowls. She had outgrown the insignificant status of "the hunter's woman" and became the mother of the family to whom authority and power was tending to concentrate. The man of the family began to discover in her an indispensable partner already tending to outweigh him in importance. This was very naturally to take place because the major economic activities of the family became the liabilities of hers; under the technological conditions existing, her man was to assume the role of a passive helper, though he often went out for a hunting exercise.

c) The agricultural family began of needs sharply to distinguish from both the pastoral and hunting families. In the hunting or food-gathering family the position of the women remained as before undefined; and the children and the old had almost nothing to do. The pastoral family produced food from the animals, and the greater responsibility lay with the men who had to breed sheep and cattle, to put them on pasture and to protect them. The women had consequently to occupy a less important, often, a subordinate position. The conditions of the pastoral economy tended to make men dominant and aggressive and to increase their ferocity. Men were mobile, voracious and ever ready to face the unknown. In the historical period, as we all know, women in the patriarchal family could never overcome the subordinate position to which they were assigned in ancient times. The dominant position of women in the matriarchal societies of the Austric and the Dravidian tribe can thus be explained by reference to the economic conditions existing in the Neolithic Age. One may try to show with the help of the theory of sexual promiscuity in the archaic society and the rise of private property that matriarchal society was the earlier general social system which was later on replaced by the
patriarchal system when the private property came to be accepted as a social institution. But the fact remains that in spite of the rise of private property some societies are still highly patriarchal, and the theory of sexual promiscuity is mentally inferred from the study of the marriage system of some extant backward tribes who may not be the true representatives of all the tribes of the past. Besides, it does not explain why the men who resorted to their physical superiority to establish patriarchy after the rise of private property could not assert it earlier?

The agricultural mode of production by its very nature introduced elements of stability in the life of the family; they could not be as wandering as before. They were still semi-nomadic, because of the declining fertility of land. It was rather a transitional period gradually leading men to the static life of the agricultural society which needed sticking to land.

This stabilisation in the general atmosphere of higher productive activities required them to define in more clear terms the social relations that were to subsist among the members of the same family and those of the families that lived and worked side by side. For example, what was the relation between the man and woman who happened for the time being or permanently to live together as husband and wife would be? How other men and women would look upon these standard woman who were to live together, rear children and bring them up to be men and women again to carry on the heritage from generation to generation? It was not a question of a number of men and women living together who could be well described as "a pack"; sex, for example, was about to change from being a mere biological fact to becoming a social necessity.

As fundamental changes take place in the mode of production, men and women are called upon to redefine their social relations. It was then the very important problem of forming families, clans and tribes. As anthropological studies reveal the racial groups did not respond all alike.

e) The change in the mode of production needed redefinition of the economic relations that served to regulate the ways they
produced and consumed and the ways the distribution of social produce could take place. For example, should it be collectively owned and privately cultivated and appropriated? The answer is difficult to give in a few apart words. Ownership is undoubtedly a question of right which does not exist apart from society; social recognition is the foundation on which the system of rights is built up. In the period we are speaking of there was most probably no political formation worth the name—making laws to create and enforce rights. Still people were not without right; and society without rule; whatever rights people of that society might have had followed from and were up held by the body of customs which was punctiliously obeyed with fear and absolute reverence. Thus the question of some individual having a right apart from and without the consent or the acquiescence of the tribal community did not arise. But the introduction of agriculture, in however humble scale, compelled the reopening of the question of individual's right, the body of customs that was thought enough in a hunters' society having already been felt inadequate; agriculture created a qualitative difference. In some cases, such as clearing land and making plots, communal efforts are as necessary and helpful as individual initiative, enterprise and affectionate care are productive in cultivating land. It is therefore not unlikely that while land was held collectively, plots were allotted and sometimes reallocated to individual family. In the absence of more reliable information, nothing in this regard can be said emphatically. The study of land-holding among the tribals may not help us either, since ideas and practices have long been percolating intertribal life from higher neighboring cultures.

d) The neolithic agriculture was essentially a thresh and burn agriculture on shifting soil-hoe and digging stick culture. Undoubtedly this had the capacity to produce all the fruit, vegetables and cereal that we to day know but on a far smaller scale for the satisfaction of the producer's family. But the method was so primitive, so inept and ill-contrived and the capital investment per plot of land was so negligible, that the producer was hardly able
even to meet the barest needs of the family; it had often to be supplemented by food-gathering. It was a bare subsistence economy working on the unstable margin of prosperity, and could not produce a surplus, a basic prerequisite of going forward to higher development of civilisation and culture. The economy was not, therefore, in a position to prepare the ground for the rise of the chief as a king, which presupposes a comparatively numerous population and a considerably large production surplus, though the logical construction of an inchoate state cannot be altogether ruled out, since, abstractedly speaking, the statehood is born whenever the ruler and ruled relation is established. Since the household works were primarily in the hands of the womenfolk, and male members were still on the margin of being hunters, occasional bloody feuds between the tribes were a possibility. But organised political organisation and prepared aggressive warfare were of qualitatively different matter. We may conclude that the Neolithic agrarian population lived in pristine tranquility and peace, sometimes stirred by tribal disputes and quarrels. The Khasis in their sylvan retreats of the Khari hills have been living all these centuries in tranquility occupied with their peaceful pursuits and have, so far as is known, never fought aggressive wars; and their seliam (king or chieftain) has never dreamt of becoming a rajavartins, a sovereign conquering monarch. 

When the first religious sentiment in man began to grow cannot be correctly traced. But the idea of the great Mother, from whom the universe emerged and to whom things mundane recede back, seems to have been ever present with him since the days when he laid the foundation of his civilisation. The most ancient men in the pre-historic days in Europe could imagine the force active behind the process of creation as the Mother who was expressed by the artists of Lascaux, Cap Blanq, Trois Freres and other caves in France and Spain in the form of a woman. The ancients must probably endeavoured to answer the cosmogonic problems by somehow relating this universal force with the women who were the mothers of their children; the female principle was responsible for the creation of all that existed. Ma or the great Mother of the
African and Mediterranean peoples were worshipped in the famous temples of Ishtar in Sumer and Babylon. She seems to have been related in the Stone Age when men were hunters with lion as her symbol or vehicle, as her male consort with the bull (Refer to Dr. S.K. Chatterjee's article in the Vedic Age, PP 158, 165. The suggestion of Age is mine). In the lines quoted above from Stephen Fuchs, it is shown that from the Neolithic sites of Baluchistan terracotta figures of the Mother have been dug out. It is now accepted that the Mother and perhaps her male counterpart the Father god were worshipped by the Harappan people.

The brought the seed of the idea of the Mother goddess to India, the Austrics or the Dravidians or was it an indigenous product? Nothing with certainty can be said about that. But the predominantly non-Aryan sections of Indian population are basically the worshippers of the Mother, in one or the other form. In the Neolithic period this Mother was again identified with the Mother Earth who had to be propitiated by human sacrifices for the increase of fertility; in the Western Asia and Mediterranean regions, people in the past ceremonially sacrificed a young man, the cereal king, for the increase of fertility, agriculture having come to be the major source of social production. In the Holi ceremony, the Spring festivity, a fertility cult of India, the Hindus smear one another with red powder, perhaps a symbolic substitute for blood that was once used in such fertility ceremony many years ago.

Rice seems to have always been from the time of its first cultivation in India the staple food of the eastern part of the country. Even to day the Hindus of Bengal bless the bride and groom with the flame of the lamp, paddy and bent grass which may respectively symbolise spiritedness, prosperity and progeny.

In Tantric Sakti Puja, Phoena Saaya (five auspicious cereals, such as paddy, kidney-bean or oat, barley, sesame and pigeon pea), and Phoena Pallava (five auspicious twines of mango, rose apple, wood apple, pomegranate and marvelous tree) are offered to the goddess along with banana, coconut, rice, fish, meat and other things.

In Laksamata (Goddess of prosperity) Puja, coconut and flattened rice...
Navapatrika, a necessary object of worship, at the time of Durga Puja sometimes at the time of Lakshmi Puja also, is made of nine kinds of leaves of banana, araceae, colocasia, esculenta, turmeric, myristica fragrans, pomegranate, Saraca indica, alocasia indica and paddy wrapped together in the form of a female deity. She may be called the goddess of agriculture. The Tantra Sutras have tried to reflect the social life of the people in rituals and religion, and have thereby become more concrete and faithful to the realities of life by recognising and spiritualising all social codes of production, even the importance of the service of a prostitute was not ignored. This shows how the economic life of the people influences religious life, and how religion has reflected the material activities of the people. The best way to understand the life of the ancient people of India seems to follow the evolution of their religious life.

h) Since it was a very small-scale production, and for the purpose of meeting the needs of the family, and could not produce a good surplus, the question, therefore, of the development of commerce and trade, two very important sources of production of wealth, does not arise. If the tribal community had already reached the stage of division of labour and specialisation of function, there would have been some exchanges of goods and services among the members of the community; but the chance seems to be not very great. Trade and commerce flourished a few centuries later in the chalcolithic Age when production greatly increased owing to technological advance made possible in that Age.

The most important civilising factors after agriculture, weaving, domestication of animals and pottery, have been the use of metal, chiefly copper, bronze and iron; wheel, the use of animals for drawing cars and plough and carrying loads, irrigation and manure, bricks, boat and sail and writing and arithmetic. These were the most fundamental inventions for many centuries to come until the use of steam-power for productive purposes in the 18th century. The most remarkable invention in the intervening period
was that of gunpowder and firearms which vastly changed the technique and scale of warfare. The use of metal, so to say, introduced not so much of a fundamental change as it vastly changed the scale of production. A polished stone-axe was good at cutting trees but an axe made of copper, bronze or iron was far more efficient. The post-Harappan Aryans could very quickly spread their colonies in the eastern and southern parts of India because they had in their possession iron axe and other useful tools with which to clear the dense forests, to remove deeply rooted and heavily grown grass sods. But other inventions were more novel and fundamental, having far-reaching consequences. To the people of the old stone age sledge was known; even today farmers use a kind of sledge drawn by oxen yoked together to carry home springtime crop. But when wheels could be fitted to it, speed and efficiency increased unprecedentedly. The carrying of loads, warfare, travelling and production were all vastly improved because of the wheel; the potter's wheel could now turn a greater number of earthenware more efficiently, making commodity production in that industry possible. Animals were now part of his total investments used for helping further production possible; oxen, for example, were now used to draw plough with metallic blade for deep cultivation, for pressing oil, drawing cart, for drawing up water from deep down the earth which greatly facilitated watering land for cultivation. The artificial irrigation and the use of manure along with heavy plough drawn by oxen brought about revolutionary changes in agrarian production which made it possible to produce a surplus that gave a fresh fillip to open up new vistas of civilisation, made him free from the pauperism of the early neolithic period, brought about complete change in the man-and-woman relation by dislodging her from the place of dominance in society, made men localised but increased the possibilities of war. Brick-kilns were installed to bake brick by fire which quickened the process of city civilisation, an unmistakable sign of the modern age; complexity of civilisation leads invariably to urbanisation; villages feed the cities which turn themselves into centres of
culture and seats of government. Boats moved by oars or sails greatly facilitated travelling on water, and increased trade and commerce within the country and between the countries. As a matter of fact, great cities were developed on the deep navigable rivers like the Ganga, Sindhu, Tigris, Euphrates and Nile which allowed, facilitated boats carrying cargoes from one inland port to another, to sea ports, thence to the ports of other countries by sea-routes helping develop international trade. This brisk foreign and inland trade seems to have been the principal source of opulence and prosperity of the Harappan cities; and boats played a great role in helping develop and maintain these commercial activities. The transportation of heavy cargoes, sometimes of very heavy loads, say of large stone blocks, would have been in those days impossible, if the technique of building boats, big and small, the art of navigation had not been well developed. The canoe-culture was known to the early Austro-Indians, and in their dug-outs they moved from one place to another by river-routes, sometimes by coastal routes. But the making of boats or ships by joining planks together with flattened nails dependable enough to navigate through rugged rivers or rough seas with heavy cargoes, officers and crew was a remarkable engineering feat man attained in those days. Boats were used for transportation of animals as well as for defensive and aggressive warfare. If cart, wheel and animal gave man mobility and speed, it is boat that enabled him to gain that mobility and speed on water. No wonder that in the cultural history of Bengal and of the south Indians boats occupy a place of pride and their literature abounds in references to sea voyages to lands far-off. Once his way over land and sea was firmly established, he aspired after a conquest of space; was it realised or did it remain a mere figment of imagination's estate as the first half of the 20th century A.D.? It is almost impossible to exaggerate the importance of writing and arithmetic as civilising forces which greatly contribute to clear thinking and the growth and development of ideas; civilisation is, so to say, great ideas realised, and logical thinking is its vehicle.
All these great inventions and innovations were made more or less between 8000 and 1400 B.C. in different countries including India. It cannot be clearly explained how technical knowledge and expertise could pass from one country to another in those days. For example, generally accepted that the use of iron was invented and monopolised by the Hittites of what is now called Turkey about 1400 B.C. How could this very useful metal be known to the central Indians about 1250 B.C. Prof. Dilip K. Chakrabarti (vide his article in Perspectives in Palaeoanthropology, edited by A.K. Ghosh, pp. 347, 354) suggests that iron was known to India around 1000 B.C. at least, if not somewhat earlier; and that it might very well have been an indigenous culture.

Now let us note very briefly the implications of these inventions and innovations to the social life in general.

a) Economic activities greatly increased all around. Presumably population greatly increased owing to better food supply and health in their environment. There was now more division of labour and specialisation of function, which later on turned first into Varnas then into castes.

b) Agriculture, the mainstay of the economy, was now far more efficient because of plough with metal share drawn by oxes (copper, bronze and iron respectively), irrigation and manure, and could produce a large surplus to maintain a large number of persons who did not produce food for themselves but engaged themselves in other useful works for society, such as, the educated classes, the administrators, the warriors. This paved the way for full fledged growth of the organised states. Cattle-breeding became an inseparable part of agriculture.

c) Different kinds of industries were established, turning out large quantity of goods more than what the families of the producers themselves needed. This created in course of time a wealthy commercial class of people who carried commodities to different parts of the country and did business with different commercial centres inland and not infrequently abroad.

d) The all round development and prosperity of the agricultural and industry based society made in course of time all other
social formations and ways of earning livelihood obsolete. Hunting and food-gathering as means of living were practically given up except by a few tribes who still remained backward as before. The nomadic hordes that accepted breeding of animals as their primary means of livelihood made no further progress towards building civilisation but were aware of the great civilisation of agric.
culture-based society built up and of the vast wealth they accumulated. They would often come upon the established settlements and plunder their wealth; they would often settle down as the ruling class and build up vast empire, some of them themselves adopting agriculture and craftsmanship as means of living.

The days of collective tribal activities were fast coming to a close. As a matter fact, it was a period when tribes must have been merged into forming a people in which individuals would have greater freedom to determine their life. This tendency of the individuals to seek greater quantum of freedom, to build up his fortune himself independently of what other members of the community did led to assert individual ownership of property both in land and chattel. Great hopes were aroused in the mind of individuals who were eager to take risk and start in life of adventure. Tribal organisations were hindrances to that adventurous spirit of man. The developed agriculture, harder and more hazardous works, founding commercial enterprises, the organised states, frequent warfare, the general social environment and cultural milieu all worked together to reduce the importance of women and to relegate them to occupy a position of secondary importance in social life. The society became primarily a patriarchal one. Let us apply these implications to critical understanding of the two civilisations, Harappa and Aryan, one dead and the other a still living force in the life of the Indian people.

It had developed a good agricultural system able to feed at least three moderately big cities of Harappa, Mohenjodaro and Kali Magic. What was the method of cultivation, who was the owner of the land? To those two important questions we have no answer to give. Digging stick cultivation is less efficient, and worthless for building up and sustaining city civilisation.
It can hardly meet the yearly needs even of the producer's family. It must have been heavy plough cultivation or some other mode equally efficient. There is no plough symbol; we cannot assert or deny plough cultivation. Another probable method was scattering seed on the silty rich silt deposit left by the receding flood-water along the river banks. There are signs to understand that they constructed dams across rivers where possible to have greater areas flooded by river water. This was the practice of the early Egyptians; it is still practised in some regions of Bangladesh, particularly in the Bhojpur District where agricultural land remains under water for about four months in the rains, for the cultivation of different varieties of pulse and mustard seed. This may be my personal experience. If the land is fertile, the land generally is because of silt deposit; the method yields a good crop.

The absence of a network of irrigation canals indicates that the Harappan culture did not practise canal irrigation which, in its turn, indicates that plots of land which were away from the river banks had to be cultivated in hoe and digging-stick method depending on the fall of rain. Thus we may conclude that the agriculture was good, but not good enough to sustain many more cities. This may explain why the Indus valley did not build so many cities as the valley of the Euphrates and Tigris. The Tigris-Euphrates valleys could produce on a less stretch of arable land a greater quantity of crop because of canal irrigation and plough. The remains of what is called the great granary point to the fact that the rulers of the cities stored huge quantity of food-stuff to be rationed out to the city-dwellers consisting of the priestly intellectual class, the traders and navigators, the artisans, the officers and warriors, the workers. There are three possible alternatives: (A) land on the river banks periodically inundated was owned by the city authority who had an army of workers in their employ for cultivating and harvesting crop. The remains of worker's dwellings in the cities indicate such workers, who may not be slaves; Indian economy was perhaps never dependent on large scale slavery; (b) the authority collected revenue...
in the form of land-produce from the private farmers who had to depend on the rulers for protection as well as periodical const
-ration of the dams; (c) the authority simply purchased and stock-
piled crop to meet heavy demands in times of need, which of the-
se alternatives is applicable cannot be definitely said. But the
presence of such a centralised authority may be inferred from
the highly efficient and organised municipal service, the uniformi-
-ty in respect of city planning and control, the fortified cita-
dels, the pillared hall used probably as public assembly, the dams.
The extreme conservativeness and enforced uniformity for a period
of about two thousand years give one to believe that this central-
ised authority which ruled the cities was theocratic in nature
having a hierarchical organisation.

The agriculture was good and could feed the city-dwellers,
and the controlled distribution of stored-up food grain, however
collected, did not allow the creation of artificial crisis. But the
general affluence of the cities and the high standard of living
the city-dwellers attained could not have been possible otherwise than by intense and far-flung commercial activities. Even if
agriculture was not itself directly responsible for the vast
accumulation of wealth of the cities, it helped the process in
two ways: (a) by creating a surplus of food and (b) by producing
raw materials such as cotton, linen, and wool to feed the industries
in the cities. It must not be forgotten that industries in those days
did not differ from villages to cities, it is not impossible that
in cities they set up factory system for the mass production of
industrial goods, but the villagers were not less skilled in produc-
ing highly finished luxury goods and those of daily use. Dr. Ban
sham remarks (The Wonder that was India, P.14), "The people of the
Kulli culture excelled in making small boxes of soft stone, delic-
ately engraved with linear patterns. Such boxes have been occasion-
ally found in early Mesopotamian sites." He further observes (ibid
P. 14), "It seems that the Kulli people made contact with the earliest
Mesopotamian civilizations by sea"
Thus the commercial connections with Mesopotamian cities had been long established, and constituted one of the important sources of wealth of the Indus cities. The bourgeoisie of the Indus cities became presumably a powerful sector of the population, so much so that the historians at first concluded that the cities were oligarchic commercial republics. What role this bourgeoisie played in the political direction and control of the Harappa cities cannot be said. But the general practice of the propertied class has always been to assist their presence, to influence the Government of the country in such a way as to safeguard and if possible, to enhance their interest. Whoever may have been the rulers, the commercial class appears to have carried on their business activities almost unhindered, and the cities had by appearances sharp inequalities in the distribution of wealth; the propertied class lived luxurious life in almost palatial buildings, although the poorer sections could console themselves that they had to lead not a miserable life.

But it appears what the bourgeoisie did not have much say in the real political determination of the state or in the actual conduct of the government. If they had, the character of the administration of the cities would have undergone much changes; the essentially secular administration cannot be as meticulously conservative as is evident from the remains of the cities, the political administrators tend to minimise and if possible to surpass the achievements of their predecessors. But no such attempts are observable; the city remained deadly conservative both in form and content till the end carefully observing the traditionally fixed codes of conduct for over a period of two thousand years. This is a reminiscence of ecclesiastical hierarchy in political governance of the state. If it was a monarchical form of government or if the bourgeoisie could have a decisive say in the government changes would have been certainly introduced. There were scopes for introducing changes also; for example, they could introduce canal irrigation, plough cultivation, higher technique of making tools and weaponry. Besides, the huge accumulated wealth of the cities of the dimension of Harappa and Mahenjo-daro would easily have
given the monarchs strong incentives of aggressive expansionism. But no sign of imperialistic preparations has so far been indicated; on the contrary, the weaponry so far dug out gives the impressions of very weak repressive mechanism. The citadels also give the impression of half-hearted late preparation for defence against frequent raids on the cities and the outlying settlements in the closing years of the culture.

Why did the cities fail adequately to defend themselves against the hordes of raiders who had been occasionally attacking the outskirting villages for a long time? First, it seems, the city rulers were plagued with stubborn problems on the food front. No improvement in the method of agriculture being made, it became increasingly more difficult to feed the growing population which was many times multiplied by the influx of refugees after the outskirting village settlements had been conquered by foreign raiders. Law and order could no more be strictly maintained; the well organised municipal service badly suffered from confusion and chaos. Secondly, the bourgeoisie long felt disinterested in general welfare of the cities, and they did not introduce or were not allowed to introduce any innovations in production though they were seemingly aware of the technological advances made in the west. It is likely that the bourgeoisie and the ruling clique were not for long pulling together well. Internal funds and disharmony must have made defence of the city quite ineffective; otherwise they would have given a good fight against the raiders; instead, the citizens except a few unfortunate ones had fled the city before the raiders came. Thirdly, the underestimating of the importance of the military preparedness was another cause of the fall of the city. It appears that the rulers felt at no time the pressing importance of raising a great army for the defence of the city; the weaponry shows that there was no large standing army; the warrior class did not occupy any place of honour and importance. The general mass of the citizen body remained preoccupied with their daily round of works primarily economic and religious. Too much opulence seems
to produce the effect of weakening the capacity for waging long
and bitter struggle. So long as war remains a social fact, negli-
gence of preparation for war will always endanger the state. For
earthy, the uncivilised horse-riding nomadic hordes were sturdy
cruel and ferocious, and were equipped with weapons far superior
to anything the Harappa people possessed.

Now let us turn to understanding the Aryan society with the help of the economic approach. The early Rigvedic Aryans do not
give us the impression of any great urban civilisation. About the
pre-Rigvedic Indo-Aryans we know nothing, and the Rigveda gives the
impression of a highly cultured people, the very first Sukta of
The Rigveda being a perfect poetic form which implies centuries of
literary cultivation preceding. The pre-Rigvedic Aryans were
seemingly horse-riding nomadic herdsmen because (a) they did
not permanently occupy and use the Harappa sites, big and small,
though there was no bar to their doing so. As a matter of fact, th-
-eir means of livelihood was such that cities were not the most
suitable place for that, though they after a long time adopted
themselves to leading city life when the mode of production per-
mitted urbanisation; (b) Rigvedic Aryan society was patriarchal;
virile and vigorous men dominated society. Very primitive agricul-
tural society, as we have already seen, tends to be matriarchal,
because primitive mode of agriculture suits the female members
better. But agriculture with metallic share, draught animals and
irrigation and manure tends to displace women from the place of
social importance they hold in a less developed technological
level; none can stick to a place of importance without being ne-
necessary; and society tends to be patriarchal. But patriarchy is a
natural feature of the herdsmen's society where women found jobs
only of secondary importance. The most ancient of the Aryan gods,
Varuna, Indra, Nasatyas, are all male gods and the majority of
the deities conjured and characterised in India were male, and
the religious sects of India that heavily drew on the Vedas in
their process of characterisation remained predominantly patri-
archal, as the Vaisnavas; (c) If the pre-Rigvedic Aryans were
already cultivators of land they would have been less mobile
and would have tried to stick to the regions in which they had happened to settle before they took to tilling land. Therefore, it is better to suppose that the pre-Aryan horse-riding nomadic hordes who moved from one place to another in search of pasture land and water, the early sense of the word grahma meant meeting of Gramas, whence the Sanskrit word for battle area. (D.D. Kosambi, The culture and civilisation of Ancient India, 288).

The agricultural societies developed higher civilisation and their trade and commerce helped to accumulate considerable wealth. The nomadic hordes would often come upon these agricultural settlements and would plunder their hoards of wealth; sometimes, they would establish hegemony upon the civilised settlements and become the ruling class. Many of the ancient empires were thus established or destroyed, for example, the horse-riding barbarians, the Kassites from the hills of Iran, defeated the First Dynasty rulers of Babylon; in Mitanni the Aryan rulers from outside came and established their rule on the majority of the non-Aryan population. Many competent authorities, including Sir R. Mortimer Wheeler, now believe that Harappa was overthrown by the invading Aryans. But they did not settle there and build up their own civilisation or the ruins of the previous civilisation.

In course of time these Aryans settled down as cultivators of land, and both cultivation of land and cattle-breeding became their principal occupation. Though settled as cultivators, the cow remained for a long time the principal source of wealth; it was indeed the very name of their wealth and they counted wealth by the cow heads, it also acted as the medium of exchange. This inordinate importance of cow in the Rigvedic society had many social and religious imports, and points to the possibility that agriculture was still then not well developed, and land was not the personal property of any individual and would not be used in settlement of debts or transferred by sale, gift or by inheritance; and that land did not still then become a
part of the total capital a farmer possessed. The gifts the Raja or the chief made to the priest did not include land. Does it show that land belonged at least notionally to the community as a whole? Was it true and digging-stick cultivation that the pre-Aryan Indo-Aryans first adopted? It seems to be a transitional period in which live-stock constituted personal property and some of the Aryans were trying their hand at cultivating land. At this stage specialisation and division of labour were not greatly possible, and the raj composed hymns, cultivated land and fought tribal wars; none was then regarded as Brâhmin, Ksatriya, Vâsîya or Sudra. It was a highly simple type of social structure. The complexity of social life emerges from the complexity of the economic activities which, in their turn, may depend on many factors.

In the Rigveda we meet with a more complex social system as well as a more complex mode of production. During the whole period of the Rigveda agriculture, though made a real hobby, could not go far. It was not known exactly when the Aryans adopted the plough; they might have adopted metallic ploughshare in the closing years of the Rigvedic period for we see that in the Yajurvedic period agriculture had already come of age. (Sukla Yajurveda 12.66-70); iron share, draught animals, irrigation were all known and in the later Vedic literature mention even of plough drawn by twenty-four oxen is made. All this may be taken as showing that by the end of the Vedic period itself agriculture became dependable making a large number of men and women surplus in the agricultural sector, that rajas and Kshatriyas were no more needed directly to produce their own food, and could engage themselves in their respective specialized fields of works and society could afford real division of labour. The implications of these developments demand closer examination.

When the Raja says (RV.X.112-3) that he is a bard, his son a leech and his daughter grinds fried barley to make flour for sale, he simply informs us that members of the same family could work at different occupations to earn their daily bread. It shows that caste system had not already developed and that society
society was already divided into many professional groups, such as carpenters, physicians, smiths and sycophants and priests who worked for money. This Sukta also shows that the arrows made by the smith could be sold to rich men who themselves did not make the arrows—they required, that is, the artisans, craftsmen produced commodities for sale which indicates commercial activities in the society. It is difficult to believe that the bard's daughter made a potful of flour, her whole day's work, to exchange it for a cow. There must have been money, cowrie or gold, silver or copper coins of small denominations, for the exchange of goods and services. Thus we may conclude that in that phase of the Vedic period when this rśi was composing the Hymn (Ṛgveda IX.11) agriculture, industry, commerce and trade thrived. At a still later period, when the hymn (Ṛgveda X.90,12) was composed the economy progressed further and the question of clear-cut division of society into four Varnas and greater specialization of functions was thought of but was not further pursued in the Vedic period. But the idea was there and was fully developed in the post-Vedic period and given a trial with partial success, since members of the three higher classes were always promiscuously engaged in social functions till the end of the later Vedic period in spite of theoretical determinations. It is to be noted that the distinction between the pre-Vedic and the Vedic period and the division of the Vedic period into the sub-divisions of the early, middle and late Vedic periods can be only logically made and not chronologically, following the arrangement of the Hymns in the Ṛgveda. Still such divisions, however imperfect, are useful for a more precise understanding of the social developments corresponding to the economic development.

In the early Vedic period Rājan was nothing better than a tribal chieftain; the chief among the equals; the rājanyas, the kṣatriya-lenders. He held the office hereditarily or held it being periodically elected by the members of the tribe. The selection of the Rājan by the members of the tribe seems to be an earlier practice than that of kings holding office hereditarily since even
when the principle of hereditary selection was firmly established, a formal sanction by them did not become redundant before a long-time had elapsed. The rājan did not exercise more than the barest minimum of power; more power was not necessary, nor could he exercise more than minimum of power, he did not possess the financial means. It seems he had to fall back on his own means to support himself and his family. He was not the owner of land, nor could he levy taxes on the people he had to lead and defend and the disputes between whose members he had to settle. The entrance of the word vali in the Rgveda gives one to suppose that it was once a voluntary gift from the members of the tribe or a compulsory extraction from the defeated tribes; the rājan had a share in the booty they captured from the enemy; cattle-raiding was a good source of income in those days both for the rājan and his followers.

If we have drawn the rājan in the outlines of an insignificant tribal chief without much pomp, pageant and power, this is because the magnificence, position and power of the king, for that matter, of the state, depend to an extent on the economic conditions of the people, on the stage of productive capacity they have attained. In all probability, rājan of the early Rgvedic period did not attain the status of a king which depended on the administrative machinery and the standing army, on other political paraphernalia of lesser importance; nor was the tribe a state or kingdom strictly speaking; paramountcy of the king received greatest support from the exchequer.

But the power and position of the rājan improved and he gradually changed to becoming a real king as the agriculture along with trade and commerce reached a higher level of development. The Vaiśyas or the producers class more and more depended on the specialised agencies like the rājan and the rājanyas for their protection (Rgveda X.124.8) and they more eagerly paid vali or tribute to the king; the king now lived on the subjects; tributes the defeated tribes; aid and frequent raids on the enemy territories were important sources of the king’s income. We could now afford to lead a more pompous mode of life and live in larger and...
more distinguished houses and was an anointed king and had developed a small machinery of administration and a standing army under the Senani. Important officers of the kingdom were the purohitos, spies and messengers, and other petty officers about whom we know very little. Some of the kings became powerful and rich enough to make sumptuous gifts to their priests which often included captive rājonīyas and enslaved girls; the political import of such gifts was that the intellectuals were then, as they are still now, a powerful machinery of publicity, and rulers could ignore them only at their peril.

But the economy made a real thrust forward and reached a new high of development in the post-Vedic, especially in the Brāhmaṇic and Śākta period unknown to any age preceding. All metals, including iron, were known and used; agriculture, industry, trade and commerce highly developed; and the flourishing economy necessitated division of labour and specialization of functions which was carried to an extreme. An inkling of the numerous types of professions, occupations, arts, crafts and industries in which people of this period engaged themselves can be found in the list of the victims of the Puruṣa medha in the Bajasaneyi Śāhīti (XIX). The inchoate idea of the four Varnas was now well polished with the doctrines of karma and metempsychosis into a fine theoretical instrument of social organisation and control. The Brāhmaṇas had become highly organized community specializing in the high technique of sacrifices which they carried to an wonderful perfection and complication, in the studies of the vedas and in different branches of knowledge and science. Agriculture, industry, trade and commerce worked together to accumulate great wealth in the hands of the Vaishyas (Śresthins) who perhaps because of their inordinate pre-occupation with the making of wealth were gradually removed from the position of giving leadership to the society and were compelled to occupy a social position just above the Śūdras. The Śūdras, whether ethnically of the Aryan or the non-Aryan stocks, being deprived both of intellectual capacity and economic power, were the worst suf-
sufferers in the social stratification. The Ksatriyas, specialised in warlike and administrative affairs, became ambitiously conscious of their dominating position in society, and the kings were threatening to become conquering monarchs on imperialist scale for which many expensive, gorgeous and royalist sacrifices had to be devised. Religious activities, spiritual life and philosophical ideas did not remain as they were in the Rigvedic period but changed in consonance with the great happenings in the other spheres of society.

The economic interpretation of Indian history of rather the approach to understand Indian history by following the process of economic growth and development that we have applied to the history of India from the early palaeolithic Age to the Age represented by the later Vedic literature is a powerful method of understanding, though it suffers from certain basic limitations. Some of these limitations we now propose briefly to discuss are as follows:

1. Society forms the background of any economic activities worth the name. We have seen how economic activities are projected on the social organisation, ideas and ideals. We cannot think of a mode of production, palaeolithic or otherwise, without presupposing the existence of a society, however organised. Society creates the conditions for any mode of production what so ever.

2. A mode of production follows technical inventions and innovations. We have seen how the great inventions of plough, wheel, oven etc greatly changed economic activities and social life. But these may be said autonomous intellectual activities of man, not explainable by reference to any mode of production. Discoveries, inventions and innovations are social facts emerging from the unique constitution of the inward world of individual man, and totally dependent on society in the sense that individuals live social life. The unique constitution of the inward world of the individual man is influenced but never determined by society and cannot be causally explained; variation and uniqueness are its peculiar features.
3. In all probability the Indo-Aryans took to cultivation of land first in India and most probably they learnt plough cultivation from the Dravidians or Austrics. But they developed civilisation and culture which characteristically differed from those of the Dravidians. With more or less the same mode of production as in Egypt or Mesopotamia, the Indo-Aryans developed a culture which may be called unique and remotely related with other systems.

4. It cannot be explained why some of the Indian tribes preferred to remain all these centuries mere food-gatherers, though they must have known agriculture and could have procured land for the purpose. Some other tribes again took to herdsmanship as a means of life, evidently disfavouring the way of life of the agriculturists. The choice of professional occupation cannot be explained economically.

5. In the Brahmanic and the Upanisadic period, the Vaishyas are known to have accumulated great wealth; that is, they were the richest section of the then Indian population. Still we understand that they did not form the most powerful, influential or respected section of the Indians. On the other hand, the Brahmins, barring a few of them such as Yajnavalkya, were not famous for their accumulation of wealth; still, because of their learning, lofty character, independent spirit, high moral sense, deeper spiritual understanding, they were able to exert a deep and wide influence which the Kshatriyas tried in vain to contain, and to occupy a position from which they could ordain and establish principles of social organisation and determine the purpose of social living. This is all the more important because, unlike the ecclesiastics of the Mediaeval Europe, these Brahmins as a community did not hold any position of legal power. Yet they were the law-givers of society which it was the king's duty to see enforced. It would be naive to believe that the kings passively accepted and enforced what the Brahmins enjoined; royal ordinance was always an important source of law. Yet there is no denying the fact that those economically insignificant Brahmins who wielded no coercive force or exercised no legal autho-
authority could delineate the contour and define the purpose of Indian social life.

6. The fact of leadership, in whatever social sphere it may be, is beyond the common run of mankind, works unpredictably and remains inexplicable by economic laws. Vedegha Mathava's leading band of adventurous warriors and peasants to open a new settlement in the eastern region of India had certainly economic imports and important economic consequences, but the question still remains why, of all men, Vedegha Mathava was inspired to lead his men to an unknown land full of uncertainties and hazards in those days; what qualities his character was made of? If it were mere acquisition of wealth, he could have acquired that on the bank of the Sarasvati. Inspiration, intuition and revelation do not form parts of daily experience and belong not to the plane of our material existence. The spiritual force in many mysteriously works to place society on a plane different from the one which would normally emerge from the resultant workings of the material forces. The unsatiating love or power in the Ksatriya princes, the spirit that defies otioseness, found in those days its royal expression in such important sacrifices as Rajasuya Vajapeya and Sarasvatha. On the opposite end, on the Brahmanic plane of absolute quiescence of truth, light and bliss, there was enjoined the sacrifice of Sarasvatha in which the Tapas sacrificed all he possessed to liberate spirit from bondage.

Thus the economic approach though very useful in explaining material culture of society fails to properly understand and appreciate that part of culture which results from the works of the spirit in man.