

CHAPTER ONE

HOW MAN BECAME AN ECONOMIC ANIMAL

- § 1. *Economics Is a Branch of Biology.*
- § 2. *Primitive Man Haphazard as an Animal.*
- § 3. *The Dawn of Social and Economic Life.*
- § 4. *The Domestication of Animals.*
- § 5. *The Beginnings of Settlement and Sustained Work.*
- § 6. *The Rest of the Historical Overture.*

CHAPTER ONE

HOW MAN BECAME AN ECONOMIC ANIMAL

§ I. *Economics Is a Branch of Biology*

THE first thing to ask of this vast intricacy of human activities in which we live is, What as a whole is it? What is its nature? How did it arise? What do we know of its history? When and how did this world of work and wealth begin?

We must go back first to historical biology, the prelude to history. In the *Science of Life* there is a careful account of the beginnings and ascent of living things, of the dawn and primary nature of human psychological processes, of the development of man as a social animal and as a reasoning creature—an account which culminates in a special book devoted to Human Biology. At that point this present work takes up its task. Economics, which is neither more nor less than the academic name for the science of work and wealth, is spoken of in the *Science of Life* as a branch of ecology; it is the ecology of the human species. Ecology deals with the welfare of species generally; how they hold their own in their environment, and how they depend upon and serve other species of plants and animals; how they prosper and increase or suffer and decline. It is the science of the balance of life. Economics is the science of the balance of human life and how it prospers or decays. We have to deal here, in this survey of work and wealth and happiness, with the position and prospects in space and time of practically the only economic mammal, *Homo sapiens*. That is the wide framework of our undertaking.

By economic animal we mean an animal that prepares and stores food socially. Ants and bees are economic animals. Almost immediately we will explain how it is that man differs from all other vertebrates in being economic.

Until recently economic science and discussion have ignored biology and outraged psychology; they have dealt with a sort of, standard and inalterable man; it is only now that it becomes

THE WORK, WEALTH & HAPPINESS OF MANKIND

possible to bring economic realities into line with these more fundamental sciences and treat them as evolved and evolving facts. But in no field of knowledge has there been such vigorous advance during the last quarter of a century as in the study of social origins. A vast rapidly organizing mass of fact becomes available for educational use and for application to the economic life of mankind.

The way in which the knowledge of social origins has grown upon the minds of the intelligently curious during these past five-and-twenty years is a process as fascinating as the development of some long desired picture upon the plate in a photographer's dark room. There was a steady and at first almost unconscious convergence of originally very remote researches. Psychoanalysis, coming from the mental clinic by way of the study of mental stresses, dreams and childish thought, has illuminated mythology and primitive mentality very vividly; archaeological discovery, the science of comparative religions, anthropological speculation and mental physiology have all been approaching the interpretation of the rapid and marvellous conversion during the brief space, astronomically speaking, of less than a million years, of a rare and rather solitary and self-centred species of primate into an economic animal with a continually developing social range and a continually increasing biological interdependence. For that is what has happened in and since the Pleistocene period. Man ceased almost suddenly to be an ordinary animal, eating its food where it found it, and he became very rapidly indeed an unprecedented species, leading an economic life resembling only quite superficially the social economic life of the ants, bees and termites. He achieved this social economic life, not as the insects did, by the development of organizing instincts, but by the interplay of motives in his cerebrum. The nature of this transition lies at the root of any sound economic study. A review of human work and wealth and happiness cannot be either sound or helpful unless it rests firmly on this fundamental biological fact.

The *Science of Life* tells the story of the evolution of the cerebral cortex in the mammals, and the way in which hand, eye and brain have educated one another, shows how a new power of abstraction and planning crept into existence with the appearance of the primates and, with a resort to vocal and visual symbols, imposed itself upon the wasteful trial-and-error methods employed by

HOW MAN BECAME AN ECONOMIC ANIMAL

mentalities of a lower grade. And further, biology demonstrates how these symbols of sound and gesture, which appeared at first as a mere means of communication, rendered possible the immense and rapid mental organization of *Homo sapiens*: immense in relation to the intelligence of any other living creatures. Man's rapid yet insensible transition from the casual feeding of all other sorts of vertebrates, to economic foresight, was the direct outcome of this mental organization. All this is explained quite clearly in the *Science of Life* or any equivalent biological summary that may exist. And thereby the way is cleared for a sound psychological approach to human economics.

Up to the beginning of the present century such an approach was impossible. Historical and economic speculation was profoundly vitiated by the tacit assumption that man in the opening phases of his social life saw things as definitely apprehended consequences as clearly, and generally thought as we do now. Historians had still to realize that either geography, climate, or human nature could change. And among other fundamental failures of imagination in their thought, the economics of the last century carried back into the remote past the distinctions we make to-day between the religious and material interests of man. Primitive man was supposed to be mentally already a business man, driving bargains and reaping the "rewards of abstinence." Abstract thought was ascribed to him. Popular writers upon pre-history, anxious to make their subject sympathetic, have always been disposed to exaggerate the resemblances between the life of a man or woman in the late palæolithic age and the life of to-day. They made out the early savage to be a sort of city clerk camping out; they presented the men of Ur and early Egypt as if they had been the population of Pittsburgh or Paris in fancy dress. They minimized or ignored the fact that these people were not only living under widely different stimuli, but reacting to them in ways almost as much beyond our immediate understanding as the mental reactions of a cat or a bird. "Human nature," they said, "never changes." In truth, it never ceases to change.

Anyone who will spend a little time in looking over the carvings on a Maya stele or the representations of Indian gods, and who will reflect that these strange and intricate forms were made with intense effort and regarded with the utmost gravity, that evidently they

THE WORK, WEALTH & HAPPINESS OF MANKIND

conveyed meanings that were felt to be otherwise inexpressible, may get some intimations of the width and depth of the mental gulf across which we moderns, with our abstract terms, our logical processes and our prompt rejection of irrelevances and unorthodox associations must strain to conceive the earlier thoughts of man. Dreamlike and childish is what we call these images now, and dreamlike and childish they are, but such was the quality of the mental atmosphere in which the enlarging social life of humanity began. Man began his social life dreamingly, amidst fear and fantasies, before he could talk very much. Speech and social organization grew complicated together. His fantasies still haunt our social institutions.

The exponent of the science of work and wealth has to bring out all this. The task before the workers in the field of modern economics is to use all this new work to fertilize their barren abstractions. The ideas of Frazer, of Jung, of Atkinson play upon and enrich each other. The last haunting suggestions of a "social contract," of the idea that human society was a deliberate arrangement between intelligent people like ourselves, is being cleared out of our minds by this play of thought between the mythologist and the psychologist, and the way is being opened to a proper understanding of the social mechanism.

§ 2. *Primitive Man Haphazard as an Animal*

Let us recapitulate the broad facts about human origins that have been assembled during the last half century. They are the necessary foundation for all our subsequent generalizations about social interaction.

Man was already a tool-using and fire-making creature before he became man as we know him to-day. Several species of *Homo* have existed on the earth, of which *Homo sapiens*, all mankind now living, is the sole surviving kind. And not only do we know now of other species of man, but we now know also of other genera of primates, Hominidæ also, nearer to us than any ape, and yet not men in any sense of the word: such types as *Pithecanthropus*, the man-ape of Java, and *Sinanthropus*, the ape-man of Pekin, manlike creatures below the tool-using level. There is a rapidly growing body of knowledge now about these sub-men and early men whose

HOW MAN BECAME AN ECONOMIC ANIMAL

lives preceded humanity. One year gives us Rhodesian man; a little later comes this *Sinanthropus*—the sort of Missing Link our grandfathers demanded before they would believe in the animal origins of man. While I write someone may be actually excavating another important fragment to fit into the jig-saw picture of man's origin. Some two or three million years ago or so, there was, it is manifest, a considerable number of species of these quasi-human creatures, "ground apes," perhaps, rather than arboreal creatures, similar in many respects to their cousins, the clambering or climbing great apes, of which the gibbon, orang-outang, chimpanzee and gorilla still linger in the dwindling tropical forests of our planet. Before very long we shall be able to picture their manner of life.

Apes, these early sub-men, and man, constituting together the class of Primates, had and have certain distinctive advantages over most other great mammals. One of these advantages is the possession of exceptionally good eyes. The primates see far more clearly and exactly than the run of mammals. If they do not see so swiftly as a cat or dog, nor are so quick to detect movement, they have a far better apprehension of the form and relations of things. There is a distinctive area of precise vision on their retinas. No other mammals except the monkeys possess this area of distinct vision. And the fore limbs of all the primates had been developed by a phase of arboreal life into more and more competently prehensile organs. Hand and eye therefore worked together with the brain in a rapid mental development. All the early primates were exceptionally wary and ingenious animals, and all very ready and able to use sticks and stones for their immediate ends. A chimpanzee, as the *Science of Life* describes very clearly, will display contrivance quite beyond the range of any other mammalian type. Several of the early species of *Homo*, perhaps all the genus, seem not merely to have caught up sticks and stones for use, but to have shaped and adapted them to particular ends. The sticks have perished; the stones endure.

Many of the more recent geological deposits abound in stone, and particularly in flints, which have certainly been chipped deliberately to point and shape them. It was once supposed that these eoliths, as they are called, were the work of real human beings like ourselves, but it is more probable that they were made by one or more kindred species now extinct. The ancestry of modern man is still difficult to

THE WORK, WEALTH & HAPPINESS OF MANKIND

trace precisely. Finds will have to multiply very greatly before we can fill in our genealogy with complete assurance.

The most near and interesting of these extinct human kindred is the species of *Homo* known as the Neanderthal Man (*Homo neanderthalensis*). He differed from our own species (*Homo sapiens*) in his teeth (which were flatter and more complex, without our rather larger, and so more beastlike, canines), in his want of a chin, in his inability to turn his head back and up to the sky, in the fact that his thumb was not so exactly opposable to his forefinger, and in minor differences in his limb bones. Features of his jaw-bone make it doubtful if he could use articulate speech of the human kind. The movements of his tongue may have been restricted, but then he may have resorted to gesture or other methods of symbolism. *Homo neanderthalensis* had a fairly big brain, but it was bigger behind and narrower in front than that of *Homo sapiens*. We do not know if he met and interbred with *Homo sapiens* (as dog, jackal and wolf will interbreed with each other), but we do know that he made quite well-shaped implements, buried some of his dead with their tools and ornaments beside them in caves, and used fire. His later implements show more skill than the earlier ones and come nearer to the *Homo sapiens* type of manufacture. So we conclude that the capacity for these things was common to the ancestor of both this species and *Homo sapiens*, and that man was already a fire-using, tool-using animal before he was completely man. And his tool-using must have involved primitive feelings about personal property. Even our ancestral sub-man, the common ancestor of these two species or races, must have trailed an increasing amount of gear about with him. His economic pilgrimage had begun.

Early man of our own line, *Homo sapiens*, was too intelligent to be easily drowned and fossilized, and were it not for this habit of interment he shared with the Neanderthaler, we should know very little indeed about him. We should know as little of him as we do of the other quasi-men who did not bury their dead. But so far as our present records go, the indisputable *Homo sapiens* came upon the scene some forty thousand years ago or more, a distinct race if not a distinct species, and he was then a hunter, wandering in small family groups from pitch to pitch, living like all the rest of the great mammals on the food he found from day to day, fruits and roots, small game, and sometimes a larger kill, using fire for cooking and to

HOW MAN BECAME AN ECONOMIC ANIMAL.

keep off hostile beasts, and extending his natural powers by means of stakes, clubs and shaped and sharpened stones. He was certainly not a very numerous race at that time. He had still to develop extensive social habits. He probably wandered in small family groups as the great apes do to-day, and he may have been as rare as they are.

§ 3. *The Dawn of Social and Economic Life*

From this wandering and hunting condition man, true man, that is to say, the species of *Homo* to which we belong, presently made a very extraordinary stride forward. He seems to have made this stride very rapidly from the biological point of view in something between five thousand and ten thousand generations. To geologists and astronomers that will seem a mere instant of time. We have as yet few material traces of this transition. It is possible that this stride forward was taken in regions now submerged and so far inaccessible to scientific exploration. But the most subtle and ingenious probings into human habits, traditions, and mental reactions have pieced together the probable outline of the processes by which this stride was achieved. They constitute a complex and fascinating speculative literature, rather too ample and fascinating for intense treatment here. The drift of it, and especially its mental aspect, is given in the *Science of Life*.

The gist of the change was that while hitherto man had subsisted upon the natural food supply of the country in which he lived, he now began to cultivate and store food, keep other animals to be a source of supply to him, live in larger communities than heretofore, and establish definite permanent settlements. He had become an economic animal. From the point of view of biology this was a quite extraordinary new departure. Except for a few rodents of which the beaver is the most remarkable, no other mammal, no other vertebrate, has even begun to develop in this direction. Rabbits and gophers associate but do not store; squirrels store but do not form co-operative communities. Dogs and wolves hunt in packs but take no thought for the morrow. Even with the beaver, it is questionable if there is a deliberate storage of food. No mammals cultivate. We have to go to the insect world, to the ants, termites and bees, to find any parallel to human societies. They,

THE WORK, WEALTH & HAPPINESS OF MANKIND

too, are economic animals which are settled in communities and do not live from hand to mouth.

Yet, though the change meant a transition from one sort of life to a sort of life so fundamentally different that scarcely any other vertebrated species displays it, and though it was fraught with the most astounding possibilities for this planet and it may be for the whole universe of matter, it yet went on in all probability generation after generation, age after age, without any very sudden and violent revolutions in human usage. The herdsman, the builder, the cultivator, were already latent in the watchful, ingenious early human wanderer. Already, before his economic life developed, he was talking, he was imitating, he was in his manner experimenting. One thing led to another, and the unforeseen of yesterday became the familiar of to-day. *Tradition* appeared and grew and changed, unaware that it ever changed. Man's increasing ingenuity and curiosity increased the number of his implements and possessions. He had to keep these impedimenta somewhere, and perhaps a store place was the first thing to tie the developing varieties of *Homo* to a definite settling place. Moreover, it was convenient to have a hearth where a fire could be kept alight, for early fire-making had its difficulties. So agriculture found man already disposed to root himself to place. He must have passed through this great transition from animal wandering to economic settlement almost unawares. The story of human work and wealth does not begin, therefore, like something suddenly begotten or hatched out; it does not open as a play does with a curtain suddenly rising on Act One: it dawns.

§ 4. *The Domestication of Animals*

The interest of *Homo sapiens* in other animals was the lively interest of a hungry hunter who was sometimes hunted. He lay in watch and puzzled his brains about what these other animals might do and what might influence their comings and goings. Spears, arrows, traps, fish-hooks are among his earliest productions.

He imitated these beasts, and in his quickening brain, which must have been very like the brain of a bright child of to-day, he suspected his imitations affected the behaviour of his enemies and his quarries. Dances to influence game seem to have begun quite early in his history; they may have been among his first rituals. He

HOW MAN BECAME AN ECONOMIC ANIMAL

shaped the form and movement of his fellow animals in gestures. His opposable thumb and finger made it easy for him to record these gestures and scratch and smear likenesses of beasts on rocks and wood: cats, it would seem, beyond the abilities of *Homo neanderthalensis*. He drew and painted beasts on rocks and in caves, and we discover them now with vast appreciation. He recorded his hunting for us to see, and even made pictures of his camp and dances.

It is a pretty question whether man picked up the dog as an associate, or whether the dog picked up man. The relationship may have begun like the relationship of the lion and jackal, when the latter merely follows the former about to pick up the remains of its kills. Early dog may have hovered about early man, and the superior sociability of the dog may have begun the first rapprochement.

Nature is a great friend of co-operation; it is a gross libel upon her to say she is always "red in tooth and claw." On the contrary, she has something like a passion for making living things interdependent. She elaborates and confirms every disposition to associate. One of the commonest utilizations of the hovering cadger is as a watcher and warner. The rhinoceros and crocodile, for example, have their attendant birds which are vermin pickers and scouts. And for the dog which hunts naturally with other dogs it would be easy to help round up deer, or cattle, or horses, in association with man. At any rate, the dog opens the list of domesticated animals. He was sleeping and barking about the human group while it was still a group of wandering, tool-making beasts.

And man with his dog, though he consumed the herds of reindeer, wild horse, wild ass, wild cattle and sheep that drifted in search of grazing grounds as the age of forests gave way to the age of open plains in Europe and Central Asia, did not pursue them with an inveterate hatred. He protected them as far as he could from the competition of other beasts, wolves and so forth, which wasted them; he sought to restrain their wandering beyond his reach and protection. The possible gradations between hunter and herdsman and between truly wild beasts and beasts that have come to tolerate the approach of men are insensible.

At the end of his great stride from the paleolithic wandering life to the neolithic territorial life, we find man has domesticated dogs,

THE WORK, WEALTH & HAPPINESS OF MANKIND

oxen, sheep, pigs, probably goats, the ass, and possibly also in Central Asia the horse. The distinction between domestication and farming is not clearly marked, and we cannot say when or where man attained the latter stage. Breeding in captivity is the characteristic of this phase of control. Oxen came to be used as draught animals, and with them man probably took over the major agricultural operations from woman. For the management of flocks and herds the dog was essential and was well qualified for: this both by natural intelligence and by his hunting instinct.

Now, all these creatures brought with them various very convenient by-products—teeth, horns, bones, hides and hoofs—for the use of man. We find the list of man's material and impedimenta growing longer. He could not change his dwelling-place so frequently. Property limited his movements, tied him down to one spot, at any rate, for considerable periods of the year; and as his surroundings grew more familiar, as danger passed from an unknown to a known and calculable element in his environment, as the necessity for constant alertness diminished, came the opportunity for reflection and experiment.

And now commences another development. Man was struck by strange imaginations about these beasts who were becoming his intimates. He began Experimental Zoology; he tried to breed the unlike together and to interfere in normal breeding. Mythology is full of fantastic hybrids, from the cockatrice to the minotaur. These legends are the fossils of experimental dispositions that once filled his mind. They show what he was after. At some stage man added the sturdier mule to the tale of his servants and helpers. And also he discovered the changes produced in the temper and texture of animals by castration. There was a curious phase of mutilation in human development which still appears transitorily in boyhood and girlhood. Man chopped himself about, he circumcized, he lopped off limbs, he tattooed, he trepanned, he knocked his teeth out. Evolution had given him the flint knife, and he used it—as a boy will still use a knife—on himself and others.

Moreover, he made certain experiments that must have seemed at first very queer things to do. He tried the milk of these domesticated beasts. We are so accustomed to rely on milk and milk products that it is hard for us to imagine a time when a resort to such nourishment must have seemed unnatural and even monstrous, yet

HOW MAN BECAME AN ECONOMIC ANIMAL

there may have been such a time. There must have been mental phases in these early experiments like the fantastic dreams and imaginings of a little child. Before Freud few people dared to confess what things had passed through their heads during their years of innocence. The ideal child was supposed to have a mind of the gentlest whiteness; it was held that we were born in a state of perfect self-suppression instead of having to learn it for long, painful years. . . . All these opening phases of human life still remain to be worked out. The earliest of the agricultural communities we can trace had milk, butter, and cheese, as well as meat.

§ 5. *The Beginnings of Settlement and Sustained Work*

And while Man was thus becoming an experimental zoologist, he was at the same time acquiring a very considerable practical knowledge of plants. As a wandering hunter he must already have had an extensive acquaintance with edible fruits and herbs, nuts, roots and the like, and it is hardly to be imagined that his concern for the movements of the beasts he tracked and the herds he followed left him regardless of woodland and grass.

But he probably knew of grass and grain without much regard to their phases and processes. One may doubt if in his primordial hunting stage he recognized the relation of seed to tree or of season to fruit and flower. We cannot say with any precision yet at what stage in his development man realized that there was an annual cycle, a year.

We contemporary human beings are taught so much from our earliest years, we are told that this is so and that is so with such reiterated conviction, that a multitude of ideas seem to us to be in the very nature of things, whereas it is merely that at a very early stage they have been built into the fabric of our minds. Children of three or four will say quite confidently that the world is round and that the year goes from summer to winter and from winter to summer; and it is hard to purge these ideas from one's consciousness and imagine an adult mind without these particular assumptions. But the world of the early men was flat and went on for ever, and the weather changed, grew hotter and colder, snowy or rainy, sere or green, and it was only the very oldest and most observant who could have had a chance of noting any established

THE WORK, WEALTH & HAPPINESS OF MANKIND

rhythm in these phases. When the year had been discovered, it had still to be measured and mapped out. An accurate calendar is a thing of the last two thousand years. Before then man was still struggling to catch the sun and stars and failing to get them. They slipped away through his reckoning of years and centuries, and put him wrong with his sowing.

Just as it is hard to conceive a mind to which extracting and drinking the milk of cows must have seemed a marvel, so also it is hard to conceive a mind with no idea of sowing a seed. But such must have been the intellectual state of the early wandering *Homo sapiens*. He no more looked forward from seed-time to harvest than a cat or a gorilla. It helps us to realize a little that age of primitive ignorance when we learn that several savage peoples remained ignorant of the connection between sexual love and offspring right up to the nineteenth century A.D.

The men of twenty thousand years ago (or thereabouts), who have left us the rock paintings, the carvings and implements of the late Palæolithic Age, had already got to a much higher level of intelligence than that. They probably had an annual migration following the reindeer and horses they ate, and a clear idea of the annual round. It is possible they had even found out the directional value of the stars, and in what seems like the representation of a bridle on one palæolithic carving of a horse head, there is reason to suppose that they employed the horse for draught purposes in their migrations. But to pass from that life to the life of the settled agriculturist must have involved certain steps of which we have at present only very perplexing and incomplete intimations. They were difficult steps to make, and there is plain evidence that they were made in a roundabout way and with much confusion of thought.

To the modern mind, ploughing, manuring, sowing, weeding, harrowing, reaping, seem all such plain, common-sense proceedings that it is difficult to realize that none of them was in the least an obvious thing to do to our remote ancestors. They had to feel their way, generation by generation and age by age, to clear ideas about these proceedings. They did all sorts of things, and the harvest resulted; they had no method of determining what was essential or what was inessential among the things they did.

One of their misconceptions lies at the root of a vast complex of

HOW MAN BECAME AN ECONOMIC ANIMAL

religious and ceremonial practices which still survive. Somehow the first crops were associated in the human mind with the killing of a human being. That is a very strange association from our current point of view, but it is an indisputable fact. For some reason that is now extraordinarily incomprehensible to us that killing seemed to our forefathers to be as necessary as the seed scattering.

Moreover, with no calendar in existence, and no proper measure of the year, it was extremely hard for primitive man to hit on quite the right time for this conjoint sowing of blood and grain. The stars, man had come to know, went through an annual change of position in the sky; the altitude of the sun at midday increased and diminished as the year passed. His clumsy and bloody sowing had to be mixed up therefore with a clumsy, toilsome, and superstitious astronomy. As he emerges to our vision from the archæological obscurity of his first essays on agriculture, we find his settled communities everywhere dominated by a temple and by a priesthood associated with the observation of the sun and stars and devoted to periodic human sacrifice. He did not dream it was possible to sow or reap without them. He did not dream it was possible to live without them.

The temple and the sacrificial priest were of primary importance therefore to the economic scheme of the first settled communities. They embodied a primitive science, however loaded it may have been with guesswork and error, and a primitive religion, full, perhaps, of needless terrors and cruelty, without which mankind might never have passed over from the earlier phase of lonely savagery and casual subsistence to its present condition of economic interdependence. The first religions were as practical in their purpose and as closely interwoven into the texture of life as a hoe or a cooking pot. They were as necessary and inseparable a part of early social life. There was no nonsense about religion being too "spiritual" for business use in that stage of human development.

Biologically this change from a wandering to an economic life was a great success. Very rapidly *Homo sapiens* became a numerous animal instead of a rare one, first perhaps in some region now beneath or round about the Mediterranean, and then spreading slowly and multitudinously over more and more of the available land surface of the globe. He became more numerous than any other species of the primates had ever been. His habitat grew wider

THE WORK, WEALTH & HAPPINESS OF MANKIND

and wider. He varied his agriculture considerably to adapt it to a variety of favourable conditions.

With the beginnings of settlement, regular work came into the life of mankind. Work we may define here as exertion when there is no immediate bodily urgency. It is exertion for a remote end. It is undertaken when one is neither hungry nor thirsty, lustful nor frightened nor sportive, in order that later on one may not suffer want. Man, the wandering savage, was probably very much on a level with his fellow beasts; he led his life in obedience to continual urgencies and made his first inventions in a kind of play. His first work was implement-making and fire-feeding. He worked like a gipsy tinker. Hunger and fear and other bodily cravings kept him on the move.

The primitive human communities were certainly very small family groups. The things *Homo sapiens* ate were few and far between and hard to find; quite a wide area, therefore, was needed to sustain a single family. The same is the case with the great apes to-day. They cannot live thickly. A tribe of hundreds in the Early Stone Age would have meant starvation.

Primitive organization was probably not very rigid; there were no records to *fix* things; there could have been little pedantry or exactitude about relationship in truly primitive man. There are sound reasons for believing that the typical primitive social group of man, as of the present-day gorilla, consisted of an old male, a female or so and one or two young. The old man generally drove off the young males as they grew up and became obnoxious to him. But though that was the typical it was not the only sort of group. Young males might keep together for a time after they were driven off; the old man might be killed and his group coalesce with some other group. But the patriarchal family was the dominant type. The only division of labour was the natural difference of masculine and feminine function. The male did more of the fighting, and the female bore, fed and slapped the young. Most of the minor chores were probably put upon the woman. They wanted them done more than the men wanted them done.

That was the scale and type of the first human communities. But with growing intelligence and the development of the huntsman-herdsman life, as the forests of a moister age gave place to grass plains, there was a great biological advantage in a larger community

HOW MAN BECAME AN ECONOMIC ANIMAL

with numerous men in it who could hunt in agreement and fight if necessary to retain their hunting ground.

The human community grew social exactly as other animals have grown social, as the African lions seem to be growing social to-day, by an increasing toleration of the young by the old, especially on the part of the males, and by a retardation of full maturity. The basis of all human society is the taboo, restraint, the prohibition of certain impulses. A system of taboos grew up to bar the women of the tribe from the young men and mitigate the disruptive violence of sexual jealousy. There is a world-wide taboo among savages between a man and his sisters and his step-mothers and his half-sisters. There are at least traces of such a taboo in all human societies. A young man who wanted a woman of his own had to steal her from some other group (exogamy). All over the world linger the vestiges of exogamy and marriage by capture. The idea of incest as a sin is an almost universal tradition among human beings, and it finds no equivalent among apes or other animals. There is no instinctive bar to incest in any animal. This taboo of incest may have been the foundation of real human society. It made it possible for father and sons and sons-in-law to endure each other. It made it possible for the group to grow larger and safer.

The psychoanalysts trace the moral conflict in our minds back to its roots in these primordial prohibitions and suppressions, without which social life could not have existed. They do it very convincingly. Through the taboo system humanity underwent an immense training in self-restraint. Diffidence and a respect for taboos were woven into the normal human soul. The sexual side of the moral conflict developed.

Imperceptibly a gradation of duties arose. The old man's headship and prestige were enhanced. The men specialized as hunters and fighters, and the women kept camp. There was probably much individuality about these early communities; there is no reason to suppose they were all of one pattern. Anthropologists are exact-minded men; they forget at times that primitive men are not so. Usually the headman was the depository of wisdom, but often the rôle of medicine man, who drew pictures and did incantations, may have fallen to someone else. And the older women must have done a lot of talking and telling. There must have been endless conflicts and alliances of mind and brain. The prestige of some old men out-

THE WORK, WEALTH & HAPPINESS OF MANKIND

lived them; they haunted the dreams of the tribe; their strength and their influence were invoked; medicine men saw them in visions, undertook to speak for them, and the first tribal gods were evolved.

From the gradual development of the mysteries of agriculture and the adoption of a mainly vegetarian dietary by such taboo-respecting tribes, the first settled and numerous human communities arose. As these developed, security increased, and with it the need for work. But man has no passion for work; he has to be broken in to work, and social history is largely the record of the attempt to break men in. Or, to be more exact, of men to break other men in. The dawn of economic history shows us humanity already busy upon the job of putting the work on to someone else.

The social conflict is already in full progress at the very beginning of a numerous society, and it goes on through all the rest of history. No such temperamental adaptation as seems to have occurred in the case of the ant and the worker bee has ever been achieved by man. That is the point where he differs most widely from the economic insects. These creatures have produced a real worker type, a multitude of individuals who seem to have no other desire in life than to toil in certain definite ways and live and die for the collective good. The insect worker works by instinct. Humanity has never produced a real worker type. None of us toils by instinct. Mankind can produce with ease classes prepared to give orders, disdain work and enjoy privileges, but the workers remain not a class but a residual mass, subordinated without enthusiasm, betraying no essential willingness for a subordinate rôle. That is why it is so unjust to tell the sluggard to go to the ant for moral instruction. The ant *likes* work for its own sake. It is morally incapable of inaction.

One thing that has stood in the way of such a separation of our species as we find among ants and bees is the varying economic processes of the human community, which have called sometimes for one type of toil and sometimes for another. And we shall show as this work proceeds, that the resistance in the human soul to a life of mechanical toil has lasted long enough and proved stout enough and is operating now under such new conditions as to make it improbable that a human "worker" type will ever be evolved at all. We are not travelling the same road therefore as the economic insects. The resemblance of our society to their societies

HOW MAN BECAME AN ECONOMIC ANIMAL

is more apparent than real. Man is travelling a road of his own that no form of life has ever trodden before, towards unprecedented destinies.

§ 6. *The Rest of the Historical Overture*

This dawn of human economic association has been treated with a certain fullness here because of its great structural importance to the rest of this work, but the further history of the expansion and complication of mutual help and service must be dealt with more compactly. It must be not merely descriptive but psychological. The whole science of work and wealth indeed, that is to say all economics, is ultimately psychological. Human beings are associated through their brains, and, except in the very early stages of family life, in no other way. They are associated, not by instinctive mechanism and innate class differences as the social insects are, but by different idea systems in what are otherwise closely similar animals. The science of work and wealth is the history and analysis of these operative systems of ideas.

In his temples, laws, customs, man has left us, fossilized, as it were, the data to reconstruct these idea systems that have served to bind him to his fellow men. The history of human communities — political history, that is to say — is, as the *Outline of History* shows, fundamentally a history of developing means of communication and the possibility and realization of larger and larger communities. It is the story of a secular change of scale in the dealings of man with man. The economic history of mankind must be *pari passu* a history of the growth, changes and replacements of the inducements, beliefs, symbols and methods that have made social co-operation possible and determined the character of its development. The common worker in the early communities before the dawn of written history, like the common worker now, must have gone about his work because somehow he found himself *there* and his work was what it seemed he had to do. If he had no instinct for work, he had acquired a habit of work, he acquiesced in its necessity. And backing up that sense of necessity in his mind, and arresting any primitive impulse to revolt, there were tradition, religion, awe, there was a belief in ruling Powers, in gods or a god, justifying the scheme of things, a "synthetic personified sense of

THE WORK, WEALTH & HAPPINESS OF MANKIND

the Tribe" as the god of the Tribe, as lord, director, and protector. Behind the taskmaster loomed the temple and the possible anger of these gods. To rebel against work was to go out of life into nothingness.

This religious tradition took on the individual's developing ideas and emotions as he emerged from his infantile subjection to mother and father. His childhood was prolonged by it. He grew up out of sonship to his father only to become one of the "sons" of the tribal founder or the tribal god. He never emerged completely from the mental habits of sonship. He never became a free, self-centred adult beast like the primordial *Homo*.

This was not a trick played upon him. It was the way everything grew up about him; it was the way things had come about. It caricatures and modernizes those early social phases to suppose that priests, secular rulers, and leading people were not equally subject in their minds to their lord and god, or that they could release their minds to the extent of being cynical about the personal advantages given them by the general faith in a tribal symbol. They played their part in perfect good faith, not questioning the fairness of their advantages. They were the elder brethren among the sons, and they recognized obligations commensurate with their privileges. They felt that the god was on their side, but also that the god was standing observant over them.

But at some quite early stage the developing human community was invaded by another and harsher conception of relationship. Side by side with the sons of the god and their sisters and women-kind appeared another sort of human being, more definitely cast for the rôle of toil—the slave.

The domestication of animals and the domestication of strangers must have involved very similar mental processes. You took the pups of the wild dog and the children of your enemy and subdued them to your purposes. Mutually destructive tribal warfare passed by a series of variations into tribute-levying and actual conquest and class enslavement. The *Outline of History* tells of the going and coming of conquering rulers over the early civilizations. That had begun when the curtain of history proper rises. It was already established. The nomadic tradition, becoming militant, would impose itself upon the agricultural tradition, and the armed monarch would rule beside the priest. The change in the social structure was

HOW MAN BECAME AN ECONOMIC ANIMAL.

not great. Successful wars would bring captives and gang labour in their train. A harsher type of toil would spread and prevail in the larger communities, a type of toil more consciously under human compulsion and mentally less acquiescent.

But we can deal only in the broadest outline with the development and interplay of ideas in what we now call the ancient civilizations. The relation of the everyday working life to the temple and the symbols of authority can be traced in Sumeria and early Egypt and in those strange survivals of the tradition of a remote past, the Maya, Aztec and Peruvian societies. It was one social pattern—with variations. The cultivator was the base and main substance of the community. Proprietorship, like sovereignty, still undefined but apprehended, vested essentially in the god or god-king or chief of the community, and balanced against or overruled the customary property of the worker in the thing he worked upon, land, ship, utensil or what-not. There was community ownership vested in god or chief and there was user ownership, the ownership of implements. A third type of ownership manifests itself in relation to personal adornments and precious objects. But man in the early societies was not very clear in these matters; he was not very clear about anything; he knew nothing of exact definitions and logical thought; he probably did not distinguish types of ownership or detect the various roots of the "thine and mine" idea. For thousands of years ideas of possession, deference, authority and subordination grew definite or fluctuated and were modified in relation to this or that new occasion.

Through a long procession of favourable centuries inter-related systems of tradition established themselves in the minds of men, and the social man whom we can still understand without any great difficulty was gradually and surely established in the Old World, in Egypt, in Mesopotamia and in Central Asia. Dynasties came and went, and conquests stimulated or deflected the process of civilization. Language extended its range and became more precise. The word won its way slowly against the visual image as the chief implement in human thinking and feeling. Pictorial representation opened the way to writing and an increasing definition and fixation of words. Slowly, through scores of centuries, the symbols and metaphors which still frame our thoughts were hardened and set by time. The mental and emotional dispositions of *Homo sapiens*

THE WORK, WEALTH & HAPPINESS OF MANKIND

in the great warm river valleys, became more and more akin to our present "humanity."

Age by age, man sharpened and fined his words and idioms, as age by age before he had sharpened and fined his flints. As thought grew fine and exact, the more primordial thinking of the earlier mythologies took on a monstrous and incredible quality. The ancient gods and legends began indeed to puzzle their inheritors. Men, feeling their way to the methods of reason, to generalization and abstraction, looked for more "reasonable" explanations. Twenty-five centuries ago in Greece the modern mind was already pecking its way out from the shell and membranes of tradition and mythology in which it had been incubated—profoundly unconscious of its origins. A fresh phase was beginning in human life. The age of exact reasoning was dawning.

And about twenty-five centuries ago that extension of economic contacts and the development of trade and trading classes and trading cities which had been going on with a comparative gradualness from the days of the first localized civilizations, quickened very considerably. Money and the money idea became increasingly operative. It brought profound and subtle changes into economic life. Money relaxed and released property and made credit processes of a quite unprecedented rapidity possible. Men could now undertake impossible payments and pile up debts as they had never done before. Usury grew. Some day the science of work and wealth, the new realistic political economy, will gather all that is available about the methods of early trade before currency and accounting and find what there is to be found about the trading, for example, of Cnossus and Tyre and Sidon. It seems to have been plain barter. Then the appearance of new, more abstract methods will need to be traced. The onset of money and reckoning was a very cardinal event in man's development. The money community which came into existence in the first millennium before Christ, was an altogether more mobile form of association than the barter and service civilizations that had preceded it.

In the *Outline of History* the Roman republican and imperial system is treated as the first instance of a "money" community. Its economic operations were far more extensive and fluent than those of any preceding great community, and it arose out of a sea conflict between two commercial republics, and not upon the basis

HOW MAN BECAME AN ECONOMIC ANIMAL

of a great alluvial area inhabited by cultivating peasants and conquered by nomads, as the "ancient" despotisms had done. It carried the Western world forward into larger and less stable social methods. China, India were far less affected by money and continued to revolve in the traditional alternatives of conquest and dynamic change for another thousand years.

Religion in the Roman Empire was less integral to its social and economic life—more aloof and less intimate. Human society had no longer the same need of its binding power. Money was providing a new nexus. Religion, as people say nowadays, became "spiritualized."

The extending Roman system made a greater use of the slave gang than any previous system and staggered so soon as its wars were no longer a source of captive toilers. The expansion of the City of Rome and its citizenship was by the scale of world history a rapid and unstable expansion. It never really worked out the conflict of methods between serf, slave, and wage labour. Its wealth was hectic, and it consumed its population. Its crash was a stupendous event for mankind. Disorganization came from within, and the barbarians tumbled into the ruins—with an air of conquest. The common people, sunken from the normal free farmer level, had no spirit to resist the Hun, the Northman, or the Arab. For them it was only a change of masters.

Our modern world arose out of the wreckage of that crash, and so it is that the history of Rome must play a larger part in this overture than any Eastern history. The professors of the science of work and wealth, who will presently be teaching our youth, will some day examine the expansion and collapse of Rome as essentially an economic process. Here we have to go with less than scientific assurance. The thesis of the *Outline of History* is that the facilities for insolvency provided by ill regulated money, the inherent impermanence of a slave system, the failure to develop a representative governing system as the Empire grew—or even to realize that such a thing was needed—the failure to produce sympathetic cooperating "educated" classes in sufficient abundance, difficulties in communication, the nomadic wedge in the Danube plain, and possibly climatic changes and epidemic diseases, all contributed to that series of disruptions and reunions and disruptions which makes the history of Europe and western Asia, the history of the Empire

THE WORK, WEALTH & HAPPINESS OF MANKIND

in the West and East, throughout the Middle Ages. The monetary system was too loose and elastic, and the administrative system not responsive, elastic and sympathetic enough for the Empire to work. Gibbon's analysis of the Decline and Fall is all too deeply coloured by his anti-Christian bias, for Christianity, that amazing mélange of ancient rituals with new spiritual ferment, was a symptom rather than a cause in the vast, unsound expansion and collapse of the first great money-credit system. The *Outline of History* tells for how brief a period the Roman Imperial System really worked, and to the *Outline* the reader will have to go for the divergent fates of the Latin and Greek Empires, for an account of the barbaric driftage of the Dark Ages, and the slow resumption of order as the feudal system crystallized out of the confusion.

The Social and Economic History of the Roman Empire, by M. Rostovtzeff, 1926, is a work of great learning and acute analysis. It is a very important first step in the analysis of the Roman downfall. His conclusions (p. 486) are that: "None of the existing theories fully explains the problem of the decay of ancient civilization, if we can apply the word 'decay' to the complex phenomenon which I have endeavoured to describe. Each of them, however, has contributed much to the clearing of the ground and has helped us to perceive that the main phenomenon which underlies the process of decline is the gradual absorption of the educated classes by the masses and that consequent simplification of all the functions of political, social, economic and intellectual life which we call the barbarization of the ancient world. The evolution of the ancient world has a lesson and a warning for us. Our civilization will not last unless it be a civilization not of one class but of the masses. The Oriental civilizations were more stable and lasting than the Greco-Roman because being based chiefly on religion they were nearer to the masses." To which we may add that these civilizations were also simpler in structure and less permeated by those social solvents, money and credit operations.

With the Church and the Holy Roman Empire, with the development of states and kingdoms and the rise and fall of powers and empires in Europe and Asia we need not concern ourselves now. For that too the reader must go to the *Outline*. Our concern is rather with the fate of the productive and business ideas and methods of the Roman and Byzantine world, throughout the long

It seems to me to prove just the opposite, i.e. keep the masses uneducated if society is to survive!

HOW MAN BECAME AN ECONOMIC ANIMAL

scrimmage of the Decline and Fall. What was holding out in Constantinople, in Venice, in such perennial places as Marseilles, and in Egypt and Persia, in the way of buying and selling and hoarding and credit, while Goth, Hun, Northman and Moslem swept to and fro? Here we can put the question, but we can offer no complete answer. No one can tell us yet, even in the roundest and most speculative figures, how the volume of trade in the Mediterranean varied between 300 B.C. and A.D. 800. We do not even know how populations expanded and contracted during those times; and indeed we knew nothing exact about populations until the dawn of the present era.

And again, what the routine of daily life was like, how people kept house in castle or shrunken town during the worst of these centuries, is only vaguely known. The peasant dug and harvested and hid—as ever—as he is doing now in China. And he was made to work and yield to his brigand master. But where did the leaders, the brigand nobles and brigand princes get their clothes and ornaments made? Who did the dressmaking for the ladies of the Merovingian court, and how was it paid for? Had it all shrunken back to the worker who was kept in the household—who worked for keep, protection and small rewards? A little band of workmen gathered about every castle and manor and increased as order and prosperity returned. Manifestly some sewing and painting and carving and hammering and building were going on right through those ages of confusion.

Here we do but summarize the facts of that survival. And then came the slow economic recovery that becomes traceable after the eleventh century, the steady recovery of overland trading in mediæval times, the rise of mercantile shipping and overseas trade, the outburst of exploration, and the reappearance of wealth. A multitude of towns emerged to prosperity and importance; the Rhineland, Provence, and northern Italy led in the revival of an agreeable productive life in the West. The artisans multiplied, and the peasant went to market more abundantly. Would that we could refer here to some thorough and penetrating comparison of the developing monetary and banking systems of the rapidly healing world with those of the past! But such a comparison has still to be made. Two new devices in human affairs presently began to play an increasing part in the world's restoration; repre-

THE WORK, WEALTH & HAPPINESS OF MANKIND

sentative government and joint stock enterprise, at first unlimited and then with limited liability; and here again, to take us beyond mere general remarks, there is a call for some synthesizing mind.

The economic spectacle changes in its character more and more as our historical review approaches our own time. History was not repeating itself; history never repeats itself; but men have a curious disposition towards historical repetition. Statesmen and churchmen, as the *Outline* tells, wasted the energies of the Western world in a hundred fantastic attempts to recall the vanished Roman Empire. As persistently that Empire refused to return. Only after 1918 did the world escape finally from that retrospective obsession. Amidst the political and traditional confusion of a thousand years new forces and new orientations grew continually more evident. A greater world, indifferent to tradition, was coming into being. Before the close of the eighteenth century, man had already come to a knowledge of the whole round globe on which he lives, and was rapidly developing his means of access to every part of it. Unprecedented "empires" extended into regions Cæsar never knew. Organized science appeared and invention quickened. It was prosperity coming back to mankind, but with a new face and new methods. A new world-wide productive, trading, financial and monetary system was growing up.

Trade expanded continually from the sixteenth century onward, population increased, and the industrial revolution arrived. There was a vigorous search for productive energy. And at first for "hands." The idea of tapping natural sources of mechanical power was scarcely stirring as yet. Problems of business and social organization exercised imaginative minds. One could quote Fielding benevolently finding work for poor children and laying the foundation of factory sweating, and Defoe with great enthusiasm depicting a purgatorial land of hope for Moll Flanders in the West Indies. Many quite good men, in their zeal to get people working, were advocating every variety of compulsory toil. Las Casas, the champion of the oppressed American Indian, introduced the Negro to America and the questionable benefits of Christian teaching.

But slavery was hard to revive, because no sweeping conquests were in progress, and so wages labour became widespread and at length almost universal. There had been a long struggle in the fifteenth century after the pestilences had depleted the labour

HOW MAN BECAME AN ECONOMIC ANIMAL

supply, and particularly the urban labour supply, to retain the serf at his task and hinder his wandering off in search for wages, but wages servitude had won. Gang slavery reappeared indeed in the plantations of America—to fight a losing battle. There were a conscience and a criticism abroad that the Roman world had never known; and forces beyond its utmost imagination, new slaves without souls or resentments, were coming to take over the toil of the subjugated. The first of these new slaves which came to the rescue of the old was Steam. With the first hum and clanking of power machinery, with the bitter servitude of the machine minders to the inventions that will at last abolish such poor creatures altogether, our historical overture to the contemporary human panorama must culminate and end.

A word of correction may be added to this chapter here. It is asserted in § 2 (p. 32) that *Sinanthropus* was below the tool-using level. But as we go to press, the report comes to hand that tools, shaped tools well above the "eolith" level and traces of fire, have been found in close association with *Sinanthropus* remains.