PART ONE

1

THE HISTORY OF NUTRITION

A study of the evolution of food and human consciousness

Studying the rise and fall of civilizations can show us the story of mankind's development. From a simple childlike condition, where life went on within a timeless mythological consciousness, gradually knowledge of an earthly and practical kind increased, sometimes at the expense of wisdom. Skills developed and were often forgotten again. But the aspect that shows a continuous upward incline is the development – hand-in-hand with awakening to the physical world – of an awakening to self-awareness. We do not stop to consider how very long and intricate this development has been; it goes back over many millennia. We take for granted the degree of self-awareness we are familiar with and the outlooks that accompany it. Some consequences of our own outlook, however, are very clear – in particular the strong urge and increasing ability to control living processes.

In order to understand ourselves now, we need to appreciate where we have come from. Without that how can we orient ourselves usefully towards our future? So it is time we really tried to understand something of our human evolution in a new and different way. To look with 'new eyes' we might start by trying to appreciate what it was like to look through the eyes of the ancients. Rudolf Steiner gives interesting pictures of our earliest beginnings:

> . . . as the human family developed, its original unity with the cosmos began to be veiled in darkness. The process involved working through three states of consciousness, which led them from spiritual heights into

> the depths of the earth . . . It was from these depths that the individual has the possibility to find the original forces for the unfolding of freedom. Thus the human soul went through phases that could be described as 'sleeping', 'dreaming' and beginning to 'awake'.[1]

The gradual awakening process has been accompanied, as we shall try to show, by different phases of nutrition. The variety of foods and methods of preparation have also evolved and the communication arising out of growing, cooking, preserving and trading food is one of the main stories of humanity. This chapter will highlight defining moments in the story of food, dealing primarily with the Caucasian peoples. Journeying thus we may come to see more clearly where we are today and that the historical process is neither haphazard nor arbitrary.

Our beginnings

Our journey begins in the allegorical Garden of Eden – the ultimate expression of the 'radiant energy of Creation', familiar in world mythology. Everything there was provided, but for those original occupants there had to be something more. Adam and Eve (representatives of humanity) wished to eat of the Tree of Knowledge; they wished to know what the gods knew; they wished to 'know' each other. And so it was that in eating the forbidden fruit before they were prepared for that knowledge, they were cast out naked from this beneficent garden into a world where they had to become familiar with the earth and its laws and its constraints. They were now to find their own food and to cope with pain and death, the woman to experience the pain of childbirth and the man to develop courage and strength, and to learn through physical labouring. Mankind was to become free by going into and beyond the physical, developing individuality and self-governance, but also remembering his divine origins.

The hunter-gatherers

The earliest peoples were hunter-gatherers led by shamanic priests who, according to Steiner, possessed a kind of clairvoyance, but on a low,

dreamlike level. Their cave paintings, which represent the most striking and accomplished work of Palaeolithic art, are images often of animals incised or painted on the surface of the rock. An example is the powerful portrayal of the Wounded Bison from the caves at Altamira, northern Spain, so eloquently expressing the power and dignity of the creature as it gives up its life. These cave paintings are believed to be part of hunting rituals for the men of the period known as the Old Stone Age (or Magdalenian period, estimated at 18,000 years ago). By making a picture of the animal they were able to visualize the particular beast they would meet in the forthcoming hunt, and thus magically gained power over the animal's soul. The ritual helped to draw man and animal together. Animals were experienced as part of their own soul; the bull expressed elements of their own metabolism and their physical strength, whereas the deer expressed something of sun-related sensitivity. While men were engaged in hunting, the women of the tribe were responsible for the gathering of an enormous variety of wild plants – knotgrass, clubrush, berries, rhizomes of the canna lily, roots of asphodel, fungi, acorns, wild grain and snails. They may have acquired over many generations a real and diverse knowledge of the edible resources available and deliberately left tubers and seeds behind, eventually creating little patches with digging sticks for the food plants to grow.

Even today there can be found fields of wild grain (spelt) growing as thickly as cultivated grain. In the 1960s, archaeologist J.R. Harlan experimented with a flint-bladed sickle to see what a prehistoric family in Turkey might have been able to harvest. In one hour he managed to gather enough wild wheat to produce more than two pounds (1 kilo) of clean grain. What is more, this grain proved to be much more nutritious than the modern, cultivated variety.[2] It was discovered that lightly roasting wild grains would make threshing – dividing the seed from the chaff – easier. The roasting was accomplished in pits lined and covered with heated stones.

During this Cro-Magnon period the human being developed most basic skills, practical and artistic. The caves with their amazing depictions became silted up; some were discovered 11,000 years later, in 1895, in southern France by children playing.

Eventually, reliable and abundant supplies of foods and the ability to build their own homes must have been significant factors in the development of settled agrarian communities. However, the arrival of farming was certainly not sudden, nor was it simple.

After the melting of the glaciers, the Great Flood

The story of a devastating flood that almost destroyed all life in the world occurs in the legends and belief systems of all the peoples of Mesopotamia and the eastern Mediterranean, from the Sumerians to the Hebrews who wrote down the experiences of Noah. Let us try to imagine ourselves in those times.

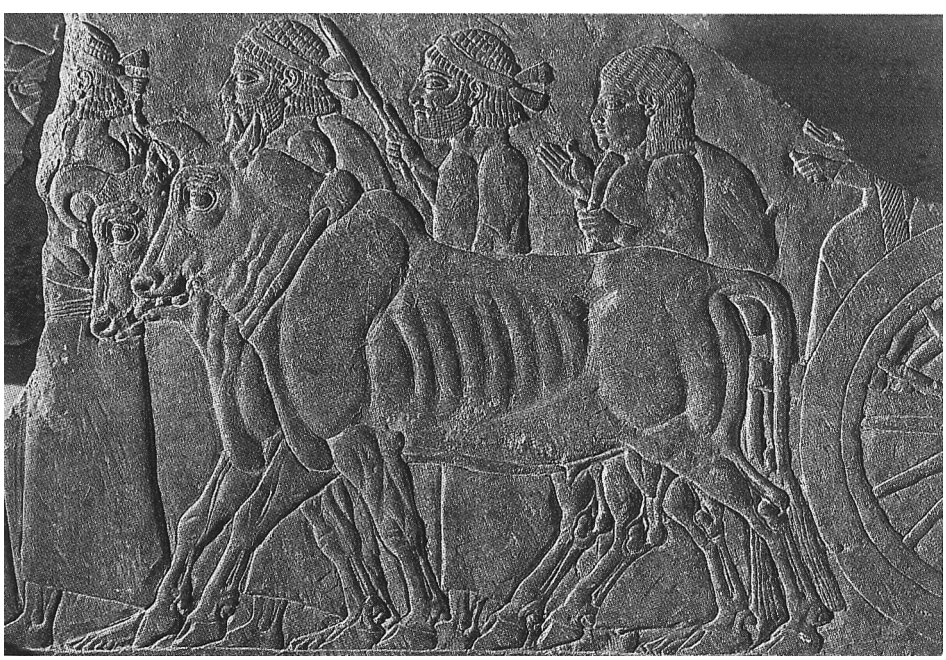
Tribal life was strictly ruled by priests, who as initiates had direct insight into the divine ordering of the world. In the migrations which followed the melting of the ice these shamanic priests played an important role in guiding their people to new lands. Then, and for some time to come, 'the human community looked up to the starry heavens and the knowledge that man still had of the stars showed him unmistakably that their forces lived within him and that he belonged essentially to the cosmos.'[3] One of the important leaders of the time was Noah, who guided his people towards central Asia. He was known to the Indians as Manu and in the Persian epic of *Gilgamesh* as Utnapishtim, and the image of his ark is also found in many other cosmologies. Noah was also known as the father of the 'Seven Holy Rishis', the wise teachers of the ancient Indians. The nations issuing from the descendants of Noah were called Aryans, which means 'Light-bearing'. Amongst these were the ancient Indian peoples and the Persians. According to Steiner, the Indians developed first and turned their steps towards the south-east, to the river basin of the Indus known as Septa Sindhave.

The age of milk and honey (during the Age of Cancer, 8426–6266 BC)

The tribes of the Indian Aryan stream still lived a nomadic life with their cattle, whose milk was their principal food. This milk was instrumental in building bodily substance or *kapha*, one of the basics of Ayurvedic medicine,[4] and the basis for their soul/astral body (see Chapter 3); they began to be more connected to the earth and less 'dreamy'. They also continued to gather wild food and did not eat their animals; eating meat was forbidden and the cows were revered as sacred. This is the age best described as the 'age of milk and honey'. Even today the phrase evokes images of abundance and carefree ease. However, in trying to penetrate the quality of these times

we should not think of this richness solely as an outer condition, some kind of prehistoric pacific paradise, but rather as a condition of real peace and inner harmony. The human being of these times felt at one both with nature and the gods, receiving their gifts with a feeling of serenity and security. It was a state of being that can perhaps best be compared with that of a young child whose parents surround it with protection and guidance, keeping at a distance for these few precious years all the influences and difficulties destined to come later in life.

The gift of milk from cows and honey from wild bees, as two particular foods, were more than a symbol of humanity's living relationship with the gods. The Milky Way is not so named simply because it is brighter than other regions in the night sky, but because humanity perceived the region as a source of 'cosmic milk' or *prana* which gave nourishment to the whole hierarchy of gods and spiritual beings who have their home in the starry cosmos. In a similar way, any bright group of stars is called a 'galaxy', derived from the Greek word for milk (*gala*).



Early herdsmen, bas relief (Mesopotamia)

These early peoples relied on the Rishis for their connection with the high spiritual world in which divine beings, the devas, were beheld. It was still possible to make use of the old inherited gift of clairvoyance (through the use of the pituitary and pineal glands, according to Rudolf Steiner), and they were helped to perceive these elemental worlds by means of an inner schooling. The outer or sensorial world was regarded as *maya*, or illusion. They knew that all natural phenomena were the work of the devas, but that these beings could only be reached in an inner way; all was threaded together in a web of karma.

In the space of thousands of years the Hindus developed this path further and further. It came to expression in the Vedanta, in the systems of yoga, in the *Bhagavadgita* and in other works, and later was in a certain sense crystallized in the teachings and the revelations of Buddha. So the people were not primarily involved with the sensory earth-world but with the invisible higher spheres; it also meant that they did not come to grips with the possibilities of the earth-world, including the development of agriculture.

Much later the Hindus developed a system of categories of foods, which came from a deep insight into the different qualities of foods and their effects on the human being. The first was *Sattvic*, providing strength from within and recommended for those doing spiritual work – the Brahmins, the scholar-priest caste. Sattvic foods are considered to be pure foods which keep the mind-body-spirit balanced, clear, harmonious and strong. They include fruits, grains, vegetables, seeds, certain herbs, milk, yoghourt and honey, giving an approximate alkaline:acid balance of 70:30.

Foods from the *Rajasic* category are indicated for kings, warriors and traders. They include many more stimulating foods: fresh meats, wine, spices, garlic, sweetmeats and eggs. This combination encourages competitive, aggressive and sensual behaviour. Acid:alkaline ratio 50:50.

The *Tamasic* category includes stale, decayed, decomposed, overcooked or reheated foods. These are foods that have no spark of life left in them, and form the larger part of the diets of the lowest castes. (The acidic pole tends to dominate.)

The categories come from the Ayurvedic system and though it may seem over-simplified to us these days, it shows profound knowledge of both people and food substances.

The ancient Persians (during the Age of Gemini, 6266–4106 BC)

We now turn to the next important Aryan tribe, the Persians, who settled in areas of southern Turkestan and who later extended towards the highlands of Iran, Persia and Medea. At an early stage they developed an outer perception and the kind of thinking that connects with observation. They were still conscious of the existence of a spiritual world active behind the normally visible world, and they still possessed great power over the forces of nature, which were subsequently to withdraw from the control of humanity. Their teachers were the initiates who were the guardians of the oracles and had command of inner forces, particularly of fire and the other elements. Their leader was Zarathustra (considered by some to indicate a certain initiatory level, not an individual, so there was more than one Zarathustra, causing confusion amongst historians rather like the ubiquitous King Arthur).

Zarathustra brought the prophecy of the great 'Sun Spirit of Light' known as Ahura Mazda, creator of heaven and earth and source of light and dark. The conspicuous monotheism of Zarathustra's teaching had an inbuilt dualism: the Wise Lord (God) has an opponent, Ahriman, who embodies the principle of darkness. However, both mankind and spiritual beings are free to choose whom they want to follow. Thus the world is divided into two hostile blocks, whose members represent two warring factions. On the side of the Wise Lord are the settled herdsmen or farmers caring for their cattle and living in a definite social order. On the other side are the followers of the Lie (Druj), who are thieving nomads, enemies of orderly agriculture and animal husbandry. So Zarathustra encouraged his people to be the first agriculturists.

Here I would like to retell part of a Persian legend, where Yima is guided by Ahura Mazda to become the first tiller of the land.

> Now Ahura Mazda gave Yima a gold sword and a gold decorated whip for the purpose of cultivating the soil, and he consecrated him first king of the kingdom of Iran. The earth was filled with men and cattle, dogs and birds and blazing red fires, but soon it became too small to contain all. When the afternoon came, Yima went up to the stars; he touched the earth with his gold sword and pierced it and spoke: 'Enlarge, O holy earth, augment

> and split open, O yielder of cattle and men.' In this way he made the earth larger than it was by a third, so that all its inhabitants could walk upon it with pleasure.
>
> After many years, Ahura Mazda called Yima to make it known that humanity, now become wicked and materialistic, would be overtaken by severe winters during which huge masses of snow were to come down from the highest mountains. This and the floods, which would inundate the lands after the snows had melted, would cause a third part of men and cattle to perish. For the protection of his people, Yima was charged to prepare a 'var', that is a fenced place or a kind of stronghold, 'a day's journey long and wide'. There he was to take men and cattle, dogs and birds and the blazing red fires. On arrival he was first to drain off the water, put up boundary posts, then houses made from posts, clay walls, matting and fences were to be built. There was to be neither suppression nor baseness, neither dullness nor violence, neither poverty nor defeat, no dwarves, no cripples, no long teeth, no giants, nor any characteristic of the evil spirits.
>
> 'Thou blessed Yima, child of the sun, expand the earth, split it apart like wise men, expand the earth by tilling it . . .'

From this ancient legend we learn how the Persians, through Zarathustra, now took in hand the cultivation of the soil. The 'gold sword' forms the archetype of the plough, received from the Sun God himself. Through the use of the plough they became amongst the earliest growers of corn, and indeed many of the food plants we use today originated from that time. The Zend Avesta, or Holy Book of the Persians, can be regarded as the first agricultural handbook.

Excavations in 1960[5] led by Russian archaeologists in Turkmenistan (the country of origin of the Iranians) uncovered one of the oldest known agricultural settlements, consisting of small rectangular, one-roomed houses, loosely grouped together with small courtyards in which it seems that cattle were kept. These settlements lay on arable land, so that each farmer had immediate access to his own field from the home. Impressions of wheat and barley grains were found in the walls together with agricultural tools with bone handles.

Other legends go on to tell us how Yima, seduced by Ahriman, left the way of God and fell to lying. He also induced the people to eat meat, which had

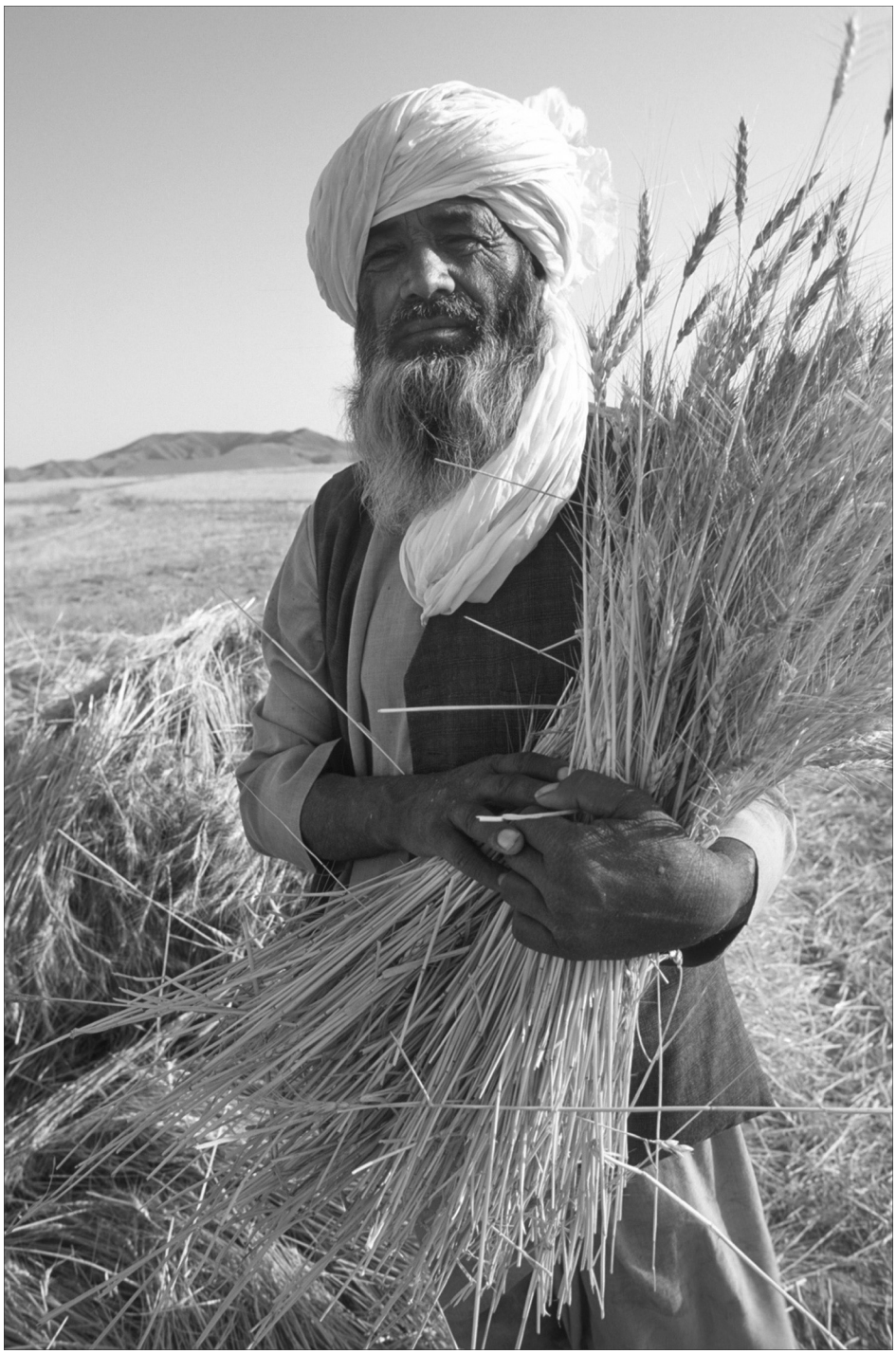
not been the practice of these people, to whom milk was the most revered of drinks. Indeed, a sacred drink was made from milk mixed with the juice of a certain plant. This drink was called *soma* by the Indians and *haoma* or *hom* by the Persians. It was first put through a fermentation process and sacrificed to the gods by means of the 'blazing fires', then it was drunk during the ritual – it induced a kind of holy enthusiasm.[6] This cult, and its various rites, was later extended and ordered by the priestly class of the Magi. At its centre the eternal flame in the Temple of Fire was constantly tended by priestly service and the *haoma* sacrifice.

The early Persians were surrounded by nomadic tribes who had little understanding of private property and would take the cattle of the settled farmers. We can see how, by erecting fences to keep in the cattle and creating boundaries between the 'wild' and the cultivated, tensions were created between those who still led a nomadic, almost childlike life and those who wanted to cultivate and develop their land and culture. For it was out of these settled agricultural communities that the great civilizations arose.

So the change-over from hunting to husbandry was accompanied by profound changes in the human's perception, not only of himself, but of his relationship with his world, where he became custodian of a piece of land. The story of Cain and Abel is an archetypal image of these two streams – the nomads and the new farming fraternity. (We should not attempt to rigidify the story within the flow of time. Real myths and legends have their being 'out of time' and are therefore true for all time.) Cain is described as an agriculturist and as such was able to develop a kind of independence. He was beginning to understand the laws of nature and gain some control over them. He was able to store grain – a tremendous advantage. Abel was a shepherd who moved about with his flocks, gathering food and using animals' milk. Cain 'slew' Abel, actually meaning that the new way of life, anchored as it was in the soil, provided a surplus that could enable other activities to develop, superseding the nomadic way of life in many places.

Early settlements

One of the earliest settled human communities to be found is Çatal Hüyük in Anatolia, in modern-day Turkey. It existed around 7000 BC and its popula-



Afghan farmer with grain

tion grew to an estimated 5000, 'a community with extensive economic development, specialized crafts, a rich religious life with ritual ancestral burials, a surprising attainment in art and an impressive social organization'.[7] In this great city the houses did not give out onto the streets but were accessed by ladders through the roofs (somewhat reminiscent of a honeycomb!). There have been found remains of oak, juniper, pistachio, apple and pomegranate trees, as well as barley, wheat, onions, lentils and shepherd's purse. The inhabitants developed superior sharp tools from obsidian, a volcanic glass, and they were known to have traded with this. Jericho, another famous city of the time, was a shrine to the Mother Goddess situated by an oasis in the Jordan Valley.

The hearth was central in the living space and cereals were ground on a back-breaking saddle quern; the bread must have been somewhat gritty and full of bristles and chaff with this technique. Nevertheless the diet was an improvement on the earthy roots, tubers and snails of the hunter-gatherer period. Much of the cooking would be done in pebble-lined pits, using heated stones which enabled a combination of roasting, steaming and smoking. The foods were wrapped in leaves or seaweed. Now we have the prerequisites for the development of cooking – a hearth and an open fire. As this was still a pre-ceramic age there were no pots, only wooden vessels.

In Mesopotamia a culture thrived on the flood plains between the rivers Tigris and Euphrates which reflected developments occurring throughout the Near East, and here the creation of pottery undoubtedly had a significant impact on how people prepared, stored and cooked their food. There were also dome-shaped ovens known as *tannurs*, which are still in use today. Irrigation systems were developed and now two forms of plough were in use, one with a seed hopper allowing fields to be sown and tilled simultaneously. With the invention of the wheel and cuneiform writing came huge changes of life-style, and with clay tokens developed to represent surpluses of food came the beginning of a money currency and the problems that might follow.

The epic of *Gilgamesh* from Babylonia is the first story to be written down. It shows how humanity begins to realize the separation that death brings. Gilgamesh is devastated by the death of his close friend Enkidu; thereafter his journey becomes a search for immortality, and for a lost plant that bestows immortal life.

The Egypto-Chaldean epoch: cereals and the vine (during the Age of Taurus, 4106–1946 BC)

The Egyptians were still under the guidance of priestly initiates or Pharoahs and selected people were trained for initiation into the temple mysteries. The chief gods were Osiris, god of the sun, and Isis, goddess of the moon, from whom we are all supposed to be descended. The great Egyptian teacher Hermes saw to it that these chosen people prepared themselves during earthly life for communion with the 'Spirit of Light'.

Egypt grew out of a narrow green trench cut by the Nile, extended from two to twenty miles wide by the efforts of the population. In this unique location with its special climate, flora and fauna, a new urban culture arose. Their treasure was the silt brought down every year from the melting of the snows on the mountains of Abyssinia, worth more than any gold. It is estimated that in 7000 years of cultivation the Nile has received the equivalent of three hundred times the total area of topsoil that would cover the whole of Europe.[8] The Nile would begin its yearly rise in late July and crested in October. To time their agricultural activities the Egyptians carefully noted the beginnings of each annual rise, and over half a century of observation led them to create the first solar calendar of 365 days (then divided into three four-month seasons of 120 days each, plus five extra days).

Nourishment by now is no longer experienced as a direct gift from the gods. What the gods gave were skills and insights into the construction and use of implements to till the soil, and insight into the development of food crops. It became necessary to labour for one's daily food and all levels of society were involved in this work, either directly by putting their hands to the soil or indirectly by carrying responsibility for the fertility of the soil, the supply of seeds, times of sowing and harvest, as well as distribution. Everything was geometrically balanced according to cosmological principles, following the heavenly bodies. In particular, kitchens were placed towards the east.

In Egypt, as well as spirituality we meet sensuality – the beguilements of food perfumed with spices, beautiful dancing girls, music, gold ornamentation, scents of incense, immense temples and tombs. The food offered would be grilled fowl, dishes of wheat and barley, pulses flavoured with onions, leeks and garlic (they were particularly fond of garlic and onions, as an inscription on one of the pyramids testifies). Children would wear

Egyptian mask. The Egyptian Pharaoh presents a remote figure with an almost trance-like expression. Is he listening to 'the music of the spheres'?

necklaces of garlic for protection. Dates and figs were cultivated, as well as melons, cucumbers and pomegranates.

The crops of wheat and barley flourished, as did the population, which seems to have multiplied more than a hundredfold in a few centuries. Fermentation processes were developed; 40 per cent of the grain was used in beer-making, the brewing done by the womenfolk using the red barley of the Nile. The knowledge of fermentation must have led to the making of leavened bread (see p. 169).

Only the Pharoahs were allowed to use spices as they were held especially sacred. We shall see how in time the demand for these aromatics were to bring about great changes. Trading practices began and Egypt traded with Eritrea and Somalia, which produced the honoured incense used in temple ritual. Looking at the image of an Egyptian Pharaoh we can observe a tremendous stillness, attentiveness and remoteness. The expression in the eyes is somewhat trancelike, the ears listening (listening to the cosmos, to the music of the spheres?). The ornate headdresses seem to extend the whole majesty of the head, whereas the rest of the garments are by contrast quite simple. The leaders of the Egypto-Chaldean people were developing this powerful kind of observational intelligence. Their study of astronomy led them to geometry and star-based architecture. The building of the largest pyramids could only have been done with esoteric knowledge. (The pyramids were used for initiation rites, where the acolyte was taken to the threshold of death.)

Hermes derived their writing system from his capacity to read 'stellar script'. The worship of cats was part of their cosmology and the presence of the cat family in the mysterious Sphinx confirms this understanding. Anyone who killed or caused harm to a cat would be severely punished.

Might the Egyptians be seen in one sense as the first real materialists? The practice of mummification and the burial of dead royalty in tombs surrounded by household items and sacrificed servants suggests a real attachment to the physical world and an intention to return to their own familiar bodies, possessions and retinues when they were resurrected at a future time. Drought, famine and invasions brought about the decline of this great empire.

Although beer had been the favoured drink of the Egyptians, wine began to become popular in the New Kingdom (1400 BC). And now with the appearance of bread a great advance was accomplished, a portable food

made of flour. Pounding grains has had really far-reaching effects on human nutrition; reducing grains and seeds to smaller particles can facilitate a more complete digestion.

Around 1250 BC emerged Moses, the foundling from the Egyptian bulrushes. He became the leader of the Twelve Tribes of Israel, distinguished by their faith in the one God, Yahveh. (Perhaps Moses had been influenced by the monotheistic Pharoah Amen-Hotep, married to the beautiful Queen Nefertiti.) The enduring faith of the Hebrew people despite manifold obstacles has enabled their powerful contribution to survive through the streams of world civilizations.

Some other cultures

Let us briefly look at some of the foods being used by other cultures at about the same time. In Thailand dietary remains have been found from those early times consisting of peas, beans, cucumbers and water chestnuts, and there is evidence of rice cultivation. The people of the Indus Valley had a varied diet which, as well as rice or wheat, included dates, coconut, bananas, pomegranates and a type of melon. Grain dishes were cooked in sesame oil; spices used were turmeric and ginger. In Mesopotamia the dates of the date palm were used as a fruit and also to make a thick syrup to sweeten puddings. Indeed the date palm was said to have 360 uses – even the pits could be transformed into charcoal.

In China south of the Yangtse rice was cultivated and foxtail millet was widely grown, spreading from village to village across central Asia. Millet was also grown in the Sahara area (the wheat and barley of the Nile not being suitable), red rice in the area of the River Niger, and Kenyans grew finger millet. Cave dwellers in the Tamaulipas Mountains of Mexico had begun to domesticate types of squash, chilli peppers and beans; further south in the Tehuacan Valley we find the development of the most important staple food plant of the Mayan and Inca civilizations – maize or Indian corn. The people of this area also began to cultivate the potato and tomato, both members of the poisonous nightshade family.

The olive tree began to change the landscape in the Mediterranean. Its oil was in great demand and its geometrically linear terraces appeared along the hillsides, giving the setting for our next culture – the Minoan civilization. This rose to its fullest expression by the third millennium BC on the Mediterranean island of Crete. It was an intriguing culture with the Minotaur (the

bull) and the journey to the centre of the labyrinth as main features of its central cult. It was both spectacular and long-lasting. The Mother Goddess, femininity and fecundity were worshipped. It was a joyful, creative, energetic culture. Here pottery came to an unsurpassed expression. Delicate vessels and figurines were decorated with lively depictions of bare-breasted python goddesses, bees, dolphins and octopus. Great earthenware amphoras were made to store their wonderful wines and oil. The trading of their famous herb-perfumed olive oil and wines with the tang of resin (retsina), as well as the sale of their Mediterranean oak for boat-building made them wealthy and influential. The great palace of Knossos is a testimony to their special achievements.

The role of wine

Dusky are the avenues of wine,
And we must cross the frontiers, though we will not,
Of the lost fern-scented world:
Take the fern-seed on our lips,
Close the eyes, and go
Down the tendrilled avenues of wine and the Otherworld.

From D.H. Lawrence's *Grapes*

According to Rudolf Steiner it was important for evolving humanity to become thoroughly awake to the importance of concrete existence, so that they could learn from it all that could be learned. As long as the human being felt that he was still a citizen of the spiritual world and considered physical life only a small part of existence, he would not take the possibilities offered by earthly life seriously enough. He would not apply himself to the opportunities for growth found only in earthly existence and might well have dallied his time away, never developing its potentials. The only way an appreciation of concrete physical existence could be aroused in man was to deprive him of the memory of his higher existence for some time. Then he would come to know only his present physical state and would consequently be impelled to apply himself seriously to it.

One of the substances that contributed to this forgetfulness was wine. Instead of feeling harmony with the gods as previously, wine allowed the human being to feel in harmony with himself and his friends. The soul adjusts, shrinking in order to fit more comfortably in the body, but it also brings with it forgetfulness. The active principle of alcohol is as a counter-

force to the upwardly striving nature of the human spirit, temporarily paralysing it.[9] This concept of Steiner's that wine was needed for its shrinking effect upon the spiritual part of the human being is a hard one, but we can possibly understand that without it we would never have engaged fully into the implications of physical embodiment.

The Graeco-Roman epoch (during the Age of Aries, 1946 BC–AD 215)

We now come to the time of the Greek civilization. The oracle sanctuaries were still operating and a few individuals such as the sibyls retained vestiges of the old clairvoyance, while others could attain it by training. The Orphic and Eleusinian mystery schools were centred in Greece. In Pythagoras' school at Crotona, Italy (established in 525 BC) the old wisdom teachings worked on. He had obtained knowledge of geometry from the Egyptians, arithmetic from the Phoenicians, astronomy from the Chaldeans, and from the Zarathustrans the secret teachings about man's relationship to the spiritual worlds.[10]

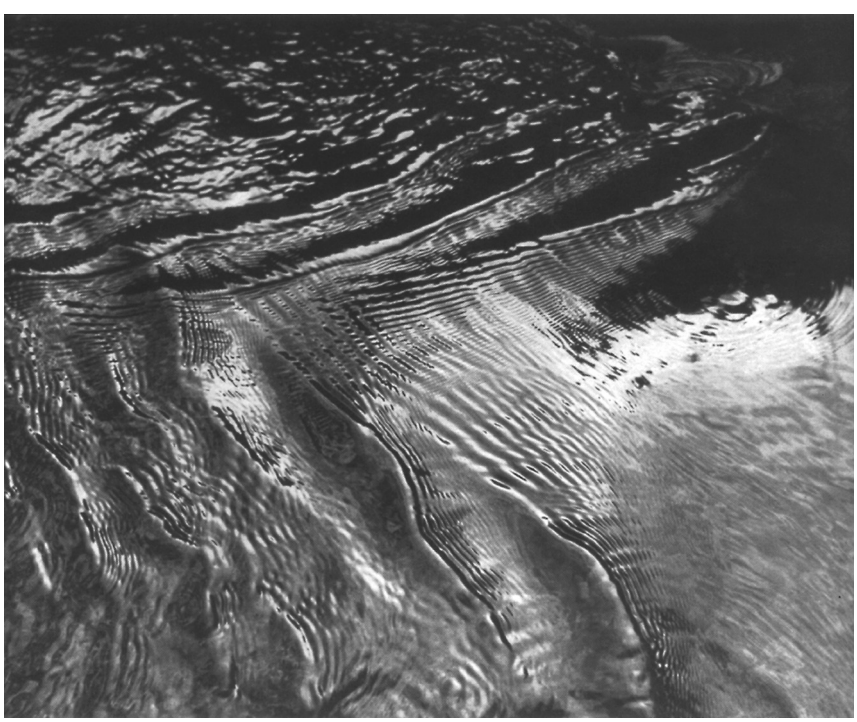
One of the lasting monuments to Greek civilization is the Greek temple. The proportions of Greek architecture, using the Golden Mean, expressed a perfect balance between heavenly and earthly principles, gravity and lightness, known now as 'architectural order', and uniquely demonstrated in the temples. There is an internal consistency, a mutual adjustment of parts that gives these structures a quality of wholeness and organic unity. Within such a structure the human could have an experience of his own uprightness, being made aware at the same time of the meeting within his own physical and spiritual natures of the dynamic tensions of creation – how he was in himself a 'hieroglyph of nature'.

Greek society was an outdoor society and the first Pan-Hellenic Games were held at Olympia in 776 BC. There was still enormous plasticity in the human form; the fluid form of the etheric presence can be sensed in the fine flowing drapery of garments shown in the friezes on public and private buildings. The Greek needed beauty and proportion in everything; anything that was ugly or disproportionate would make him feel physically ill.

Everything flourished. The Muses inspired great poets and writers. Philosophy, logical thinking, new concepts were emerging in the various schools and disciplines. The art of disputation and debate grew through the

Nike, from the balustrade of the Temple of Athena Nike. The Ancient Greek period represents a high point in spiritual and physical integrity. Rhythm flowed through life as manifest in architecture and sculpture

The vital presence of the etheric, which is seen in the fluidic drapery of Nike, is echoed in this picture of flowing water (bottom)



influence of the great minds of Athens. They sought to find rational order and ideal balance in every aspect of nature and human activity. In Plato and his disciple Aristotle we see two complementary philosophies which have greatly influenced our own thinking today. Aristotle, the son of a doctor and therefore exposed to medical and scientific thinking, formed the Lyceum school of philosophy in 367 BC. His view of the cosmos incorporated learning from previous schools, including the Ionian, and provided a comprehensive and empirical system based on logic and natural science. The human body was placed in high esteem and an emphasis was placed on the value of observation and classification. Plato had espoused a more mystical and transcendent system. His was a spiritual path which led, through a search for divine law and personal spiritual exercises, to union with the divine origin. The emphasis in his school was always on the beyond, the invisible eternal hidden within the visible.

When we look at what the Greeks were growing and using for nutrition we find, certainly amongst the masses, a certain purity and simplicity of diet. Food was seen as a sun-product, of which the cereals wheat and barley were the sacred life-giving staples. Vegetarianism played an important role in Greek philosophy, which considered the ethical aspect of eating. In addition to cereals, the Greeks used figs, grapes, pomegranates, spinach, beets, mallow, hyacinth bulbs, nettles, marrows, celery, olives, the original carrot (which was white), artichokes, asparagus and honey. The milk of goats and sheep was made into curd cheese and flavoured with poppy seeds; green herbs were used for culinary and medical purposes, and occasionally fish was eaten. Meat was not part of everyday fare, usually only appearing at times of religious sacrifice, when a sheep or goat was offered.

The Demeter myth

The fruitfulness of the earth was attributed to the divine earth mother, Demeter. Her activity, her force could be experienced instinctively. In the Eleusinian Mysteries the neophyte received, after being prepared by a long fast, the draught of barley, consisting of a mixture of roasted barley, water and mint. It was an 'initiation drink' through which he perceived the goddess Demeter.[11]

The use of salt

It was at this time that salt began to be used as a seasoning. It was considered

holy and used with great care. This denotes a new step: the human being now takes in an element of the mineral kingdom as a separate item in his nutrition. Eating salt like this had a relationship to the developing powers of thought and logic in particular. (See Chapter 14, on salt, p. 218.)

> Here is a Greek dish as described by the Roman writer Pliny:
>
> 'Soak some barley in water for three days and then leave it for a night to dry. Next it is dried by the fire and then ground in a mill. It is mixed with three pounds of flaxseed, half a pound of coriander seed and an eighth of a pint of salt, previously roasting them all. This mixture would then be shaped into loaves and baked.'
>
> A remarkable understanding of the processing of grain in order to make it more flavourful and digestible.

Homer speaks of the 'dark sea-red wine' from Lesbos, doctored with barley meal and curd cheese, and taken as a restorative. Fish baked in fig leaves, and Cappadocian loaves made with milk, oil and salt were dishes for the more sophisticated. The sacredness to the Greeks of the domestic hearth expressed *hestiatoria* – the principle that all hearths are shared with the gods.

> 'The genuine master chefs of the time were expected to have a sound knowledge of astrological cosmology, architecture, geometry, natural history, military strategy and of course medicine.'
>
> 'Not merely politics, but all religious experience found expression in the ritualized consumption of food and drink'[12]

The decline of Classical Greece

We are now at one of the critical points in the human story. Up till now these great cities, palaces, temples, pyramids and irrigation systems had all been achieved through group co-operation. It is thought that the pyramids were most probably built not by slaves but by farmers and their families while their land was flooded by the Nile. They all worked together to do whatever was needed in order to help integrate the Pharoah into the solar cycle, so he could bring forth the necessary wisdom to guide their daily lives – rather as

the whole bee-hive works tirelessly to give the queen bee the necessary conditions to lay her eggs. Although there is a hierarchy, everyone honours it – true even in the democracies of the Greeks. But all this was to change, and as all cultures have a flowering, they also have a decline.

One of the factors in the decline of Classical Greece was Dionysus, god of wine, inspiration of the great Dionysian revels. There are vivid descriptions of processions with giant wine presses filled with grapes being trodden by 60 satyrs, all singing a vintage song while the wine gushed everywhere. One can imagine that this revelry led to excesses and it is well known that the Bacchanalian rites became decadent and orgiastic. The gateway between the spiritual and the physical world was steadily receding.

Meanwhile, Aristotle had a special pupil, the young man destined to become Alexander the Great of Macedonia (356–323 BC). While Greece had become myopic, arrogant and weakened by her self-preoccupation, Alexander amassed huge armies. He swept through Greece, Egypt, Babylon, Persia and northern India, taking the Greek language and customs into the vast empire that he conquered, fired by a vision of a united mankind. However Alexander died young (also affected by Dionysus) and his great empire did not have enough stability to hold together. Later, out of this dissolution Rome arose as the focus of a new empire. The Greeks also absorbed a great deal from the conquered peoples and brought back new ideas, knowledge and skills from the East to the West. However brutal the conquest, the suppression is always accompanied by some degree of assimilation; even when partially absorbed the vanquished still react on the victor, so as to transform him – a process the academics call endomorphosis or interfecundity.

The Romans

By 146 BC Greece had been conquered by Rome, and by 100 BC the Romans began to play a dominating role in the Mediterranean and beyond. The mission of the Romans was to spread out and colonize, implanting their culture into 'barbarian lands'. Their ability with counting, organizing and directing is legendary. Linear thought patterns seem to crystallize into straight roads to move their legions rapidly from one place to another. Architecture and sculpture become more gravity-laden. No longer do we see the flowing lines of drapery as on Greek sculptures; instead a serious kind of rigidity begins to appear. Julius Caesar decided to reform the calendar –

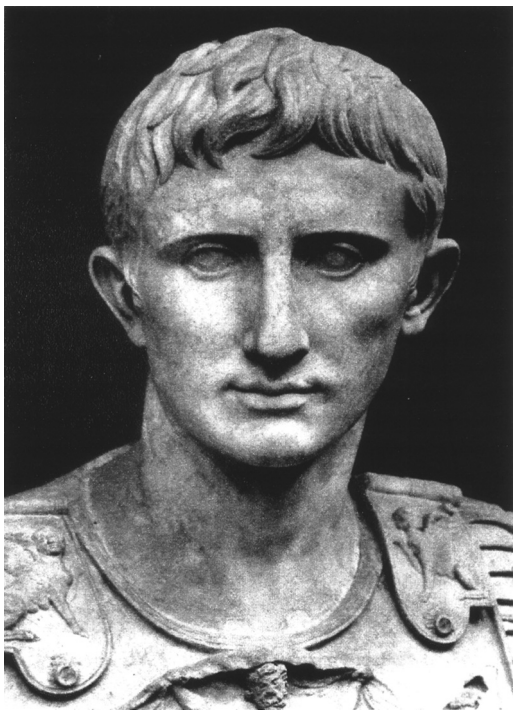
time itself is something to be controlled. Discipline and order were enforced upon people, often by violence, and gladiatorial displays and cruel spectacles such as bear-baiting led to a fear-based society, with excesses of all kinds. Amongst the manifestations of these extremes were the notorious orgies of gluttony and feasting where diners after eating hugely would be given a feather to tickle their throats to make themselves vomit, so they could start feasting all over again.

> Trimalchio, a character of the author Petronius, was always throwing banquets:
>
> 'The guests were offered a hare, tricked out with wings to look like Pegasus, a wild sow with its belly full of thrushes, quinces stuck with thorns to look like sea-urchins, roast pork carved into models of songbirds, fish, geese . . .'[13]

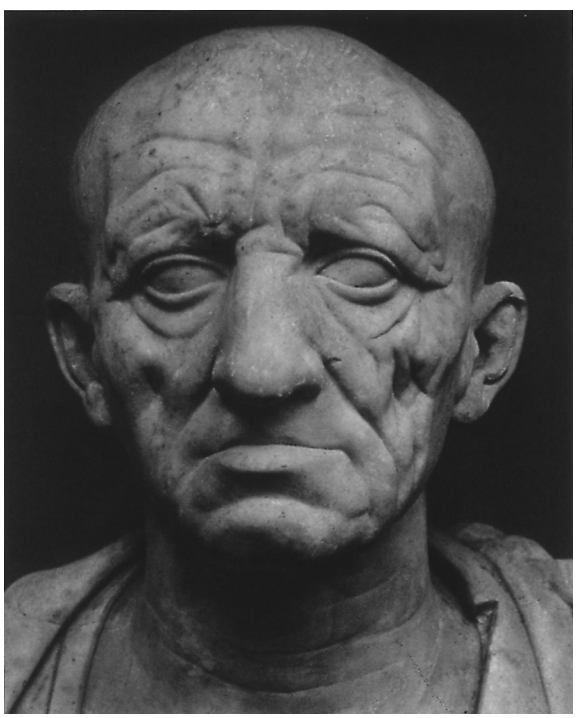
Here I want to describe a Roman sauce called liquamen that found its way into practically every dish. It was made from a mixture of fish (anchovies or mackerel) fermented for six months with salt in a ratio of 5:1 (giving what is now called enzymic proteolysis). Then old wine, shellfish or other things were added, creating a cheesy, salty flavour. (Perhaps our Lea and Perrins sauce has something of the same quality, but certainly more refined!) Apicius has a recipe for patina of pears to make your hair stand on end. He speaks of pears pounded with pepper, honey, cumin, oil, eggs and liquamen, baked together into a kind of custard.[14]

Although many fresh foods are eaten – asparagus, artichokes, cabbage, kale, broccoli – in general the diet is now departing from the pure, vital sun-quality so cherished by the Greeks. People are eating rotted, fermented foods, meats, animal fats, vinegar, salt and spices which have a hardening, 'mineralizing' effect. They are all Tamasic foods.

From being farmers the Romans turned to being warriors, and for many war was their *raison d'être*. They drew up many laws to do with land and property ownership, citizenship and trading. Society was subject to form and order imposed upon it (our own judicial system has its roots in these times). In their efficient way they were also responsible for many inventions, such as in the area of milling. After thousands of years of grinding grain laboriously in a backward/forward motion, it was discovered that with



Might the face of this young Roman express the beginnings of a new kind of self-consciousness?



This old Roman citizen appears to be permeated with gravity and weight of responsibility

circular millstones and a donkey walking in a circle the whole process of milling became significantly more efficient. So the Roman miller-baker became one of the first to produce flour in bulk and to mass-produce loaves of bread.

Roman cooks employed large quantities of spices bought from Arab traders. Pepper was valued like gold, and appears in almost every one of Apicius's recipes. Now pepper is a stimulant, but it also acts as an irritant. The role that spices played was somewhere between culinary and medicinal; they activated both the senses and the digestion. Hippocrates used peppercorns medicinally in combination with honey and vinegar for feminine disorders. Salt increased in use as a condiment. Soldiers in the imperial army were paid a *salarium*, their wages, partly in coin and partly in salt (hence our word 'salary').

During its later days the glittering displays of Rome masked a moral and spiritual bankruptcy: 'Indeed, the whole development of reason now seemed to have undercut its own basis, with the human mind denying itself the capacity for genuine knowledge of the world, while reason and verbal skills were coming to have a less than impeccable reputation.'[15]

The Beginning of Christianity (during the Age of Pisces, AD 215–2375)

The teachings of Jesus of Nazareth drew from the many mystery schools around the eastern Mediterranean and the rich traditions of the Israelites, encompassing resurrection and reunion with God. They also owed much to the context of the Graeco-Roman period.

> The old idea of the initiate-king has been raised to a new and more inward level, that of the individual spiritual Self, and no longer looks back to an atavistic loss of identity. The 'Kingdom of Heaven' is to be achieved, not through outward action, but by a breakthrough in consciousness.[16]

The emphasis was on reconnecting with the soul and spirit through a process involving scrupulous self-examination. Many of his parables are to do with a person's relationship with himself in his social and natural environment. They are stories of relatedness, bringing a new kind of morality into a divided world. The people he chose to surround himself with were simple, heart-filled

people, and women had a special place in this group. What emerged from these teachings was a call to break the binding and often suffocating blood-ties of tribe or civilization, to find one's own spiritually nourishing family and personal freedom. After centuries of bondage to duty and obligation, the human being could *begin slowly to make his own choices*.

Before Jesus' great sacrifice on the cross he initiated a new cultus in the form of a shared meal. Here earth elements, bread and wine, are sacralized to act as a leaven, Christ's body and blood, working in the human body, soul and spirit.

I am the Bread of Life,
I am the Fine Vine.

Placed into the Passover setting this community-forming, symbolic meal[17] became the centre of a new religion, Christianity. Jesus as Christ reminded us that death was but a transition.

By the close of the fourth century Christianity had become the official religion of the Roman Empire and began to take on the warlike, patriarchal and legalistic images of Roman society.

The early Christian centuries and the meeting of cultures

In the Greek world emphasis was given to the human psyche with its ability to interact with the physical world and the development of logic. Rome took this logic and used it to explore the material world. Christianity bought a new moral-ethical dimension. When the Muslim religion arrived in the Mediterranean world all of these influences were fused within it, especially strongly in Spain. The synthesis of these diverse cultural impulses brought tremendous intellectual insight and artistic creativity.

The Arabs had dominated the spice trade, by which they gained great wealth and knowledge of many nations and cultures. They set up great centres of learning and new traditions of investigation, including medicine, mathematics and astronomy, strongly centred on spiritual values.

The Christian empire of Byzantium, which had inherited much of Greek learning, was now divided by controversies over dogma and saw the exodus of many learned 'heretics' to the more tolerant Zoroastrian Persia. There at Jundishapur they met Syrian, Hindu and Persian scholars and amongst their

studies of science, art and religion they developed a particular interest in dietetic medicine. Their cooking, which had been raised to a high art, was a fusion of influences from Persia, sweetmeats from Egypt, black truffles from the Arabian desert, and dishes such as cous-cous and moussaka.

> A dish of the nomads called *hais* sounds both nutritious and medicinal:
>
> '1 lb of breadcrumbs to be kneaded with $\frac{3}{4}$ lb of stoned dates, the same of almonds and pistachio nuts . . . some honey and coriander kneaded together with some sesame oil . . . this made into balls and sprinkled with powdered sugar'[18]

As the Arab cuisine brought together recipes and ingredients from many sources, so the Arab mind was also receptive to all the intellectual influences of the known world. Works they studied included the writings of the Greek physician Galen; these were transported to a medical school in Salerno, Italy, flourishing under the care of the Benedictine monks of Monte Cassino. This school was noted for its eclecticism and freedom from dogma. The Muslim influence contributed an important emphasis on hygiene and dietary practices. The Arabs also had a profound understanding of agriculture, building extraordinarily strong and beautiful irrigation systems; water was particularly esteemed and precious in their culture.

> There is an old Cordoba agricultural calendar dated AD 961 which shows they were still working with the wisdom of the stars. It is based on the solar year and gives the position of the stars each month. How closely their lives were woven into the seasons and how they loved all the signs and activities of the times of year —
>
> *For the month of January:* 'at this time the water in the rivers feels tepid . . . The sap rises in the wood of the trees, birds mate. The falcons of Valencia build their nests and begin to mate. Horses feed on young shoots. Cows calve and the milk yield increases. Now is the time to plant grain, to put in stakes for the olive and pomegranate trees. The early narcissi bloom. Trellises are put up for early vines. Purslane should be planted and sugar cane harvested, beet preserved and syrup prepared from bitter lemons.'

In February: 'the young birds hatch. The bees propagate. The sea creatures stir. The women begin to tend the silkworm eggs and wait for them to burst. The cranes make for the river islands. Saffron bulbs should be planted and spring cabbage sown. Truffles can be found now and the wild asparagus grows. Mace begins to send out shoots. This is the month to send out letters to recruit summer labourers. Storks and swallows return to their homes . . .'[19]

As the strength of the Roman Empire declined, life returned to basics in many areas. Indeed, these early years of Christianity were beleaguered by severe famines, plagues and attacks on crops. One such attack was the first outbreak of ergotism in AD 857 in the Rhine Valley, from which thousands of people died, poisoned by their daily bread. Ergot is a strange fungus that grows on rye crops (see p. 104), but is not now common in Britain.

So the centuries after the fall of the Roman Empire were times of consolidation. The diet of the rich and poor was not too dissimilar. Most people were obliged to live upon bread, water and ale and a *companaticum* (i.e. that which goes with bread), usually vegetables and pulses, simmered together in a cauldron that was seldom emptied, with the addition of whatever else might be available – if you were lucky a hen or a rabbit or some dumplings. As the traditional rhyme goes, 'Pease pudding hot, pease pudding cold, pease pudding in the pot, nine days old.' Not a pleasant prospect!

Frumenty was a nutritious grain dish, either sweet or savoury, made by soaking hulled wheat in hot water for 24 hours in an earthenware crock and placing it in the hearth; this was then eaten flavoured with milk and honey or some of the remains from the companaticum. It would be eaten for a great deal of the time.

The Middle Ages

It was to be in the monasteries that culture flourished in Europe in the Middle Ages. Here was the seat of learning where also arts and crafts were studied and taught. The arts of gardening, cooking, baking and brewing, calligraphy and illuminating manuscripts thrived in these stable communities. Prayer, meditation and chanting also helped to focus their efforts on a higher reality. Though the royal courts might show a fashion in imported

delicacies, the monastic communities demonstrated sound ecological practice usually leading to a high degree of self-sufficiency.

Such a community would be centred on the church as the place for worship, the living quarters of the monks for sleep and study. Beyond this stretched the medicinal garden, planted with many varieties of herbs, the vegetable garden, the fruit orchards, the coniger for rabbits, the pond for carp, beehives for honey (also used in the making of mead), fields for grain and surrounding woods for the acorn-grubbing pigs. Not only was this very practical, it also had a wonderful aesthetic that harmonized with the landscape.

The great Gothic cathedrals such as Chartres were built on ancient sites, on a place where telluric currents worked through outcrops of granite and lime. They were prehistoric places of pilgrimage. All the Gothic cathedrals sprang up within a space of two hundred years.

We might see in the figure of Francis of Assisi (d. 1226) the converging of the teachings of both Christ and Buddha. The example of this man's life, his relationship to sun, moon, brother, sister, beast, bird and flower, shone as a beacon in the darker ages to follow.

By 1095 the Crusades had begun and in AD 1115 the compass was invented. These events and more were preparations leading up to the flowering of Medieval Europe.

The growth of the medieval towns in Europe, the formation of the craftsmen's guilds, and surplus time and money all contributed to a degree of individual freedom hitherto unknown. Greek and Roman cities and towns had been based on slave labour, but the medieval town was founded on the work of free people, for whom the motivation of money began to play an ever-increasing role.

Questions were beginning to be asked, and one of these questions was to do with the reality of the substances consecrated for the Christian sacrament. The awe of the mystical was fading. People began to look beyond the boundaries of Europe and the Mediterranean. The account of Marco Polo's journey to the fabulous East was published around 1300. Desire for spices intensified, causing chaos in the spice trade; so many middlemen were taking their percentage that many countries decided to trade directly with the Spice Islands. This, of course, in turn stimulated the shipping trade; new, stronger ships, now with three masts instead of one, were built, making them faster and no longer dependent on oar-power.

The medieval monastery was often a fine example of good ecological principle

Venice alone was estimated to be bringing 2500 tons a year of peppercorns and ginger to Europe; pepper was still as precious as gold. Then there were cinnamon, nutmeg, cloves, coriander, turmeric, cardamom, saffron, vanilla and many other spices.

The value of spices

What was it they were seeking at this particular time that spices offered – those minute gifts of nature, seeds, roots, bark, so laden with aroma and flavour?

Spices have the capacity of stimulating and awakening the senses. They make possible the realization of many potentials in nature and the human being by virtue of broadening the palate and creating an interface with far-off exotic places. Eventually everyone would want to go there. If we can imagine being fed for a lifetime on a diet of turnips, swedes, barley and wheat (as opposed to a subtly spiced curry or some of the other culinary delights we have described), I think you may agree one would perhaps remain a little dull in consciousness.

The age of exploration

Spices generally have an expansive effect and, for the human being at this point of his development, they encouraged his need to know, to explore and to colonize the world. In the figures of Christopher Columbus and Vasco da Gama we meet two men whose destiny was to discover new lands and cultures and new foodstuffs; their journeys were to change the known world very significantly.

The existence of the Americas was already known in certain circles;[20] it was also known that the development of these countries would speed up the increasing materialistic tendency in the West. Columbus had access to certain maps and began his journey without the blessing of the Church. In 1492 he set off, sponsored by Queen Isabella of Spain, ostensibly in search of 'spices and Christians'. As a result of his discoveries in the New World many new foodstuffs, and with them new impulses, were brought to Europe and spread around the world. Maize, or 'Indian corne', was introduced to Europe to become a staple in Northern Spain, Portugal and Italy, and later the Balkans. Potatoes, tomatoes, red and green peppers, peanuts, vanilla,

tapioca and the turkey were all discovered and brought back. All of them have made an increasing impact on the diet of the West.

To Asia from the Americas went pineapple, papaya and sweet potatoes. Chilli peppers and potatoes became the staple food of the Sherpas in Nepal by the nineteenth century. Maize, manioc, sweet potatoes, groundnuts, beans and later pineapples served to augment the narrow variety of food plants in Africa. Christopher Columbus carried vegetable seeds, wheat, chickpeas and sugar cane with him when he returned to the Caribbean on subsequent voyages. He was an extraordinary man – voyager, botanist and horticulturalist. Columbus had found the New World and by his fourth voyage in 1504 he had discovered the West Indies and settled at least 20 islands, but now he was a dying man, returning to Spain with tobacco but also with syphilis. Much blood was spilt in all these adventures.

To Colombia in 1543 went wheat, barley, chickpeas, broad beans and vegetables as well as the first cattle. Bananas, rice and citrus fruits (natives of Asia) were in turn transplanted to the New World. It was as if the whole world was one big garden; the soil must have been still fertile and receptive.

The Renaissance produced wonderful works of art dedicated to reproducing nature as exactly as possible. In Leonardo da Vinci we meet an artist not only striving for beauty but also for accuracy in scientific research. He dissected the human corpse, hitherto a complete taboo, to record what was working physically beneath the human skin, taking the analytical approach a step further.

Coffee and other stimulants

Coffee now began to make an appearance (see also pp. 251–2). Originating in Kenya or Ethiopia, it spread to Arabia where many of the new ideas in science, medicine and mathematics were thriving. Quickness of thought and an ability to work well in the world of numbers was characteristic of the Arabs. Coffee contains the stimulant caffeine; its flavour and aroma and stimulating propensities are only produced when the bean is roasted and ground, which could be seen as a further intensification of the ripening process. (Even to the point of being rather 'mineralized'. The seed is the most mineralized, dense part of the plant and its inherent flavours become intensified and released through grinding.)

In 1637 an Englishman, John Evelyn, wrote of meeting the first person he had ever seen to drink coffee, 'a Greek who was studying at Oxford'. The practice became very popular and many coffee-houses appeared, becoming centres for the discussion of ideas. Journals were read and intellectual pursuits generally followed, being quite distinct from the atmosphere in alehouses. Samuel Pepys gives a good impression of London coffee-houses in his diaries.

The delights of tea-drinking were also being discovered. In1657 the first public tea sale in England took place, but tea carried with it a different mood from coffee and found itself more at home in salons where diplomatic 'chit-chat' was cultivated. Chocolate also started to become popular, especially with the Spanish (see pp. 255–6).

These three new substances taken in the form of drinks, which have a quicker effect on the blood-stream than foods that have to be chewed, were taken up cautiously at first and then with great fervour in Europe and America. They work on the nervous system as stimulants and cannot really be classified as truly nutritional substances, but they too have played their part in man's awakening, mainly by stimulating intellectual processes. Unfortunately, they do tend to develop addictions and over-use of coffee particularly can lead to serious health problems.

The other seemingly incongruous food plant which was introduced into the Western diet was the nightshade or *Solanaceae* family, all members of which have a lesser or greater degree of poison in them. They are the potato, the tomato, the capsicum or bell pepper, chillies, the aubergine or eggplant, and the tobacco plant. The potato, at first treated with great suspicion, was later embraced enthusiastically as a staple. Previously humanity had been nourished by the starchy cereals but now we see the beginning of a wide-spread consumption of new foods that stimulate the head processes, unlike the cereals which nourish the totality. To this last group of foodstuffs we can also add cane sugar, which came to be demanded in increasingly greater quantities.

Such trends brought about significant changes in agricultural practices and the beginnings of a globalization of food, along with *changing chemistry both in the earth and the human being*. In addition, plantations of tea, coffee, cocoa and sugar all used slaves who suffered great hardship, poverty and social ills.

Towards rationalism

In the seventeenth century scepticism and dissatisfaction over the understanding of man's relationship to the earth and the heavens brought forth a particular constellation of men whose ideas appeared in the short period of 1596–1666. These philosophical and scientific ideas gave a new interpretation of man's place: he was seen as created by God purposely to have dominion over nature, in a world observed to operate in a mechanical, measurable way. The initial wonder and interest with which people of the Middle Ages such as Paracelsus viewed the world of nature was to give way to a ruthless pursuit of methods to harness nature in a purely utilitarian fashion, motivated by desire for control, power and wealth. In the early sixteenth century, Copernicus in effect deposed the earth from its central position as hub of the universe, and the human being was thereby also dethroned, his values apparently of no real importance in the vast impersonal universe. Some of the key thinkers who followed were Bacon, Kepler, Galileo, Newton and Descartes – all men of religion. When taken out of context, their work led to a duality which was a simplistic interpretation of their philosophies. Science, art and religion became separated and the basis was laid for Darwin's theory of evolution – 'the survival of the fittest'.

Bacon studied the measurable, calculable world and thought he was freeing matter from contamination by theological superstition. He proclaimed, 'Let us unlock all of nature's secrets.' Descartes discovered analytical geometry and divided the physical world from the mind; soul was equated with mind, and all possibility of an inner vitalizing principle was dismissed. With Descartes came doubt. Newton formulated a way of understanding why all the planets remained in orbit around the sun and why heavy objects fell back to the earth – the concept of gravity – but he was in fact looking at the whole creation and its God-given laws.

Christianity and the Church gradually lost power, particularly over the minds of the intelligentsia. As the background to these battles for the minds of men, I would like to remind us of the new foods that have been available – potatoes, sugar and chocolate – and the increasing consumption of salt, coffee, tea, along with tobacco and opium.

The growth of city life

The seventeenth and eighteenth centuries saw the growth of city life. New professions were created, merchants' associations were established and universities expanded to include sciences as well as classics and the arts. The world population had grown to over 500 million. Foods had to be transported in from the countryside and each city had its own great market. Rotting produce, blood and offal thrown into the cities' rivers created terribly unhygienic conditions, often resulting in plagues of disease. Fraudulent practices arose amongst tradespeople, who saw their customers as merely a means of monetary gain. Wooden nutmegs, junipers sold as peppercorns, flour adulterated with alum (a whitening agent), brick dust in cocoa, tea adulterated with used dried tea leaves stiffened with gum, pepper contaminated with floor-sweepings and other trickery were commonplace. These frauds could be detected by increasingly strong microscopic lenses, and they gave rise to the first indications of loss of trust in the foods people were buying and eating. The city dweller thus soon began to lose contact with nature and the community of agricultural life, and the bonds that had always held people together by mutual respect were quickly eroded. Strong and punitive laws had to be introduced to deal with such swindling.

The French Revolution of 1789, with its high principles of equality, liberty and brotherhood, sought to throw off the stranglehold of the aristocracy (at this time the cost of a loaf of bread was equivalent to a working man's daily earnings). New ways of baking bread with special yeasts were introduced as the old, naturally leavened bread was considered unhealthy by the scientific fraternity. New specialized yeasts were introduced (see p. 171).

The Napoleonic wars resulted in the blockading of British ports; Napoleon had identified England as a 'nation of shopkeepers' and knew what would hurt. Coffee and sugar were scarce but soon chicory root was used as a coffee substitute and sugar beet developed as an alternative source of sugar. Food science and chemistry were well on their way.

The age of ore and oil

We now come to the Industrial Revolution in the nineteenth century which brought further radical changes. Iron and steel made it possible to build

huge, intricate and powerful machines. The population of England is estimated to have more than doubled during the hundred years between 1800 and 1900 and could no longer be properly fed. Grain was therefore imported from America, and tea from India and China in greater and greater quantities. Railways proliferated, enabling all classes to travel and made possible the rapid transport of goods.

British factory workers lived on a diet of tea, bread and potatoes, with perhaps a little bacon at the weekends. Bread was already being made from sifted flour. Fresh fruit and vegetables were seldom eaten and, predictably, the health of the working people declined. Little fresh air or sunlight combined with appalling pollution and long hours in gruelling factory conditions led to many diseases, tuberculosis being the most common. Children were sent to work in the factories often by the age of seven. The Romantic poets and artists, Keats, Coleridge, Wordsworth, Ruskin, Goethe and Schiller, protested at what they saw as a terrible dragon unleashed in Europe, but particularly in England in the Industrial Age. However, nothing was to stand in the way of this dragon; even larger gaps widened between the rich and the poor, now without the benign patronage of the feudal system. A burgeoning and increasingly prosperous middle class set the pace for a new consumerism and French-style ten-course dinners became the rage.

Darwin's contribution to the story of life widened the split of the human being from any heavenly connection. The popular perception of Darwin's work reduces man to a 'sophisticated ape'. The universe was irreversibly moving, in Darwin's scheme, towards dissipation and 'heat death'. After the Civil War (1865) America quickly started to change from an agricultural nation to a manufacturing one. Agricultural products were processed into transportable commodities. Breweries, flour mills, tanneries all grew like mushrooms. Canning, freezing and chilling enabled meat and other foods to be transported long distances, and this encouraged the proliferation of cattle farming. Canned meat from Australia was half the price of fresh meat from England. Texas ranchers were to clear the Great Plains of both bison and Indians (who had relied on them for meat and skins). Freezing processes began, using volatile chemicals such as liquefied ammonia; ice became increasingly in demand and was used extensively in the fishing industry.

Scientific knowledge continued to be applied to questions of food preservation. The French microbiologist Louis Pasteur in 1895 identified certain micro-organisms as responsible for the spoilage of food. The discovery

of this new world of microbiology set up a terrible aversion to germs and a subsequent combative approach to their elimination. Pasteurization was developed to sterilize food products selectively by heating them to 72°C.

These hygiene requirements led eventually to standardization and pre-packaging, with brand names. City life for the wealthy began to focus on new fashions in clothes, food delicacies and novelty. The expansion of the population, of trade, of scientific discoveries and inventions was to bring such great and rapid change as had never been possible before, when horseback, boat or foot had been the only means of transport.

The England of Queen Victoria conjures up an image of colonial self-satisfaction. Countries had been conquered and divided up with little thought for natural boundaries, ethnicity or language, a lack of sensitivity that led to centuries of conflict. England presided over a vast colony that gave rise to the feeling that she had a right to transport her way of life anywhere else in the world. This kind of life appeared to have an outer stability, the strength of iron, but society was utterly repressed on many levels (reflected in the corsetted bodies of womenfolk, not an inch of whose body should be exposed). Table manners were carried to a farcical level where the butler was obliged to measure a two-foot space between diners in case there was any bodily contact between men and women! It is small wonder that there has been a strong reaction to such prudishness.

Everything had to be standardized, from bicycles to sewing machines, even time — Greenwich Mean Time was created. Business required that the trains run on time! All measurements were standardized, to enable the precision needed for mass-production. Of course there is a practicality in all of this; the problem was that in such a drive for rationalized efficiency there was little room for the eccentric, the magical or the mystical, even heaven with its chubby cherubs seemed to be utterly gravity-laden.

By the end of the nineteenth century the sign of the age had become clear. The first wave of the Industrial Revolution was over, the grossest injustices had been apparently corrected, and a sense of material complacency seemed to settle over the civilized world. The main purpose in life now was the production of material goods. The supply and distribution of agricultural products no longer dominated life. Thanks to the railways, the effects of crop failure in one region could be minimized by transporting from another. Scientific and technological progress dominated many aspects of life and within a generation would start to control the life of the farmer as well.

Initially the raw materials that fuelled the industrial age were iron ore and coal, but with increasing diversification a variety of metallic ores were exploited and the most important energy source became oil. Ore and oil are the materials upon which our modern life is founded. They do not bring harmony or a sense of health, instead they hold out a promise: *a seductive promise of a life of comfort and luxury*. Human ingenuity has achieved tremendous control over ore and oil. However, it does not enquire into their origins, nor has it had much concern over the consequences its products have on creation. These substances are put to work for man, carrying out his most egotistical and most selfless desires with equal efficiency. There seems to have been little place for questions of ethics or morality in the world of technology; the position taken is often, 'If we *can* then do!' But oil and ore are substances with no spark of life in them.

The petrochemical era

The petrochemical industry became firmly established after the Second World War and began to produce many products hitherto not present on the earth, such as artificial fertilizers, pesticides, fungicides, plastics, then food additives, colourants, preservatives, stabilizers, pharmacological drugs, and many others, all having particular brand names. The spread of their popularity was achieved by abundant advertising.

Psychiatrists Freud and Jung had made their mark in many ways, mostly upon the educated classes. The work they had begun on the hidden, suppressed desire-life was taken up by many advertising companies and politicians, who studied how to manipulate people's desires. The emerging individual found himself offered an endless stream of things to crave for. Freud built upon Darwin's perspective, but now brought convincing evidence for the existence of a submerged and unconscious life in the human being that directed feeling and behaviour. Jung focused on the dream-life and its ability to access a pool of 'collective unconscious', a world of archetypes and symbols. Contemporary with Jung was Rudolf Steiner, who founded the Anthroposophical Society in 1913.

It was soon realized that desires could be continuously stimulated by new products, as long as there was money to buy them. So began the necessity to work for more money, and to have credit facilities. The banks and govern-

ments would then have a large source of credit as well as taxes to finance their projects. Money has become a new god. Here was the beginning of a very cynical development – seeing people as consumers to be exploited by the manufacturing and advertising conglomerates.

The fascination with science as a panacea to end all ills took hold of the consumer's imagination. In relation to food, new processed convenience foods appear to have been met with enthusiasm by a population tired of post-war austerity and having to do everything 'the hard way'. Because these new foods had to be transported and stored for periods of time, food chemists were inventing diverse ways of making this possible. Drying, freezing or canning all change the taste, texture and colour of foods (not to mention their nutritional quality), but apparently this was not a matter for concern, to begin with at least.

Colourants were added for a good appearance; for taste, various powders such as monosodium glutamate or cyclamates (artificial sweeteners). Anti-caking agents were added to prevent the lumping of substances such as salt, sugar and powdered milk; emulsifying agents to help homogenization of substances that would normally separate (such as fats and milk), and sequestrants to stop trace minerals causing fats and oils to go rancid or to prevent cloudiness in soft drinks. The use of chemical preservatives was seen as the cheapest method of preserving food and the number of artificial substances permitted for use in the food industry now runs into huge catalogues. Many health problems have been traced to the ingestion of these substances, children often being the most vulnerable. If the cost of consequent medical treatment were included in the cost of manufacture we would have very different statistics. Luckily the public is becoming sensitized to this problem. Pressure groups have been formed which have had some effect in, for instance, the labelling of foods, though there are still loopholes as we shall see.

In the realm of agriculture, science has also held sway over the past 50 years (see pp. 64–7). Experimentation in plant breeding, as with cereals, has resulted in all kinds of distortions with the use of mineral fertilizers. Lady Eve Balfour, founder member of the Soil Association, once remarked that the use of such fertilizers merely amounted to the 'art of making water stand upright'. Lodging (being easily blown down) of cereals and distortion of gluten content were amongst some of the results. Further experimentation showed that new, so-called improved cultivars, unless they receive sufficient

water, strict pest and disease control, together with abundant fertilizer, do less well in poor soil than the lower-yielding traditional varieties. Some countries end up with 'grain mountains', where others starve. Now we have biotechnology and genetic modifications, whose advocates insist their motives in pressing forward with this technology are to solve world hunger.

Meanwhile there is an increasing incidence of gluten intolerance, the reasons for which are not completely understood (see Chapter 4). But it is in the hybridizing of wheat, forcing it to contain more and more gluten, that part of the problem lies, making it totally unbalanced. Therefore it is not the wheat, that 'sun-related' grain that has fed humanity faithfully for thousands of years, that is at fault but its qualitative manipulation.

To find real answers to these growing problems we need to remind ourselves of the larger picture. Pest control has its definite limitations, since most of the chemicals used tend to destroy not only the pests themselves but their predators (e.g. ladybirds, which eat aphids), not to mention the bees and butterflies, which are needed for the pollination process. Despite chemical treatments the pests and fungal diseases become stronger and more tenacious. Fifty years of what amounts to chemical warfare in agriculture have shown only too poignantly a lack of insight into the finely balanced, integrative forces at work in nature, and this at great cost to the environment and human health, both psychologically and physically.

Diseases of our time reveal increases in conditions linked to diet and the environment, such as heart disease, asthma (one in five children in Britain is a sufferer) and respiratory diseases, diabetes, cirrhosis of the liver, cancers, coeliac disease, candida, ADD, so the list goes on. The government gave the largest percentage of a recent budget to the National Health Service for more hospitals, doctors, nurses and technology. Many people expect to have a heart by-pass or a hip replacement or some kind of serious medical intervention in their lives. Our lack of health costs billions of pounds annually, but where is the budget for health education, nutrition and cooking classes and gardening in our schools? Where is the emphasis on good organic agriculture and husbandry without resorting to poisons, leading to mass illness?

Another recent phenomenon is the extraordinary proliferation of fast food chains, serving cheap take-away food, often eaten whilst walking in the street. The British, eager to take on an American life-style, are the highest consumers of fast foods in Europe. But we should surely take heed that

'every day, in the USA, roughly 200,000 people are taken sick by a food-borne disease, 900 are hospitalized and 14 die. One quarter of the USA's population suffers a bout of food poisoning each year, as a result of the nation's industrialized and centralized food system'.[21]

Here in Britain there are those who are proud that our agriculture involves less than 2 per cent of the population, and this figure is dwindling rapidly. After the foot-and-mouth crisis more farmers have left the land and their children are leaving too. For many men and women release from the arduous yoke of agricultural work, which never really ends, may be a relief, but for many it is a sadness, a tragedy. As for the rest of us, we have not yet felt the true impact of this revolution. One day perhaps not too far in the future we will realize that we cannot eat money. None of us would advocate returning to medieval times and I personally am grateful for much that science has brought us, but some of these possibilities have been gained at the expense of the rest of humanity. Science and technology can only be truly helpful when integrated with a truly moral/ethical understanding of life.

There is an apparently huge range of choices for the privileged minority in this world. Certainly we are given that impression when we walk into supermarkets with their vast areas of products, but one only has to observe the contents of another shopper's trolley to have a pretty good idea what kind of household they run and what the family mealtimes are like. Many people are buying 'photographs of meals', for the gaily coloured, appetizing meals pictured on the packaging seldom measure up to the frozen factory meals inside – they are 'virtual meals'. Britain buys over 80 per cent of her food from supermarkets (Soil Association figures). In having so many choices, are we awake to what we are choosing? What are we supporting with those choices? How much support do we give to our local farms?

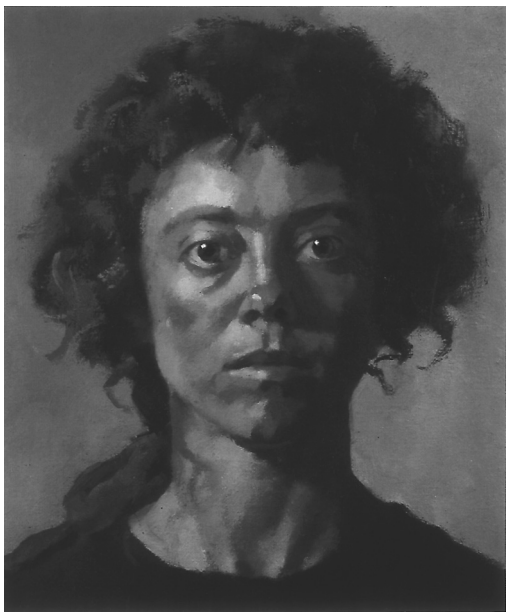
Our journey has taken us from the beginnings of settled communities where the tension arose between the 'childlike nomad' and the bounded territory of the first settled farmer, past the first priestly directors of cultivation to the star wisdom of the Egyptians and Chaldeans, the exuberant Minoans, the Greeks with their nature oracles – all these peoples had the Mother principle of fertility and fecundity at their core, their lives had lightness, creativity and abundance.

From the Roman Empire onwards there emerges the hero-warrior, the patriarch, the rise of the nation state with its boundaries and flag, and participative, intuitive and inclusive feminine qualities were subsumed in what was to become the scientific-technological age. Humanity certainly lost its original connection to the spiritual worlds and to food as sacred substance; now we in the West live in a largely secular society. In the blinking of an eye we have dismantled so much of what formerly nourished humanity, gave it hope and vision.

How is it – presuming all events to be random or chance – one event bears fruit and another does not? What would have happened if Goethe's theory of colour had prevailed over Newton's? How would it have been if Al Gore had become President of the United States rather than George Bush in these particularly daunting times? What soil had been prepared for Darwin's ideas to take such firm root? Goethe once said, 'There is nothing so powerful as an idea whose time has come.'

We can see how clever the human being has become, but specialization has brought fragmentation and our relationship with our planet needs to be reconstituted – a matter of great urgency if we are to survive. Surely no other creature would foul its nest the way the Western impulse has pillaged the planet and scattered its detritus. We need now to create a different set of imaginations from which to work, a new loom upon which to weave our notion of creation, if we are to heal the wounded Anfortas, reconnect with our story, and heal Mother Earth.

Our food will play a vital part in any kind of spiritual renewal; it is one of our most important interfaces with the planet and the human family. If food is not vital – fully alive – then we will find it difficult to have inspiring ideas. What we grow and what we import has an enormous impact on the earth, and when we look at the journey of origins we can see that most of the foods and drinks since the discovery of the Americas have an acidic and mineralizing effect on both the human constitution and soil chemistry (see Chapters 14 and 15). To remind you, some of the main food items that have spread around the world during the last four hundred years are: potatoes, tomatoes, soya, grapes for wine, rapeseed, coffee, tea, cocoa, sugar, peanuts, the use of extra salt and mineral supplements. Many of these 'foods' have a one-sided effect upon the brain and nervous system.



A young twenty-first century woman: independent, conscious and alert

Look at the faces of the Egyptian and the Romans (pp. 29, 39). Can you detect a densifying process, something descending and solidifying? What meets you in their expression? In the face of the twenty-first-century woman can we detect a new impulse?

Rudolf Steiner spoke of three different developments in the human journey. The first was the 'time of the sentient soul', when early childlike people lived in their vivid pictorial imaginations in a dreamlike consciousness. Next came the 'intellectual soul development', a waking-up stage in which the Western stream particularly has been immersed; and then (through the individuation process and capacity for independent choice) 'the consciousness soul' development, where the human being will have the opportunity for ethical individualism and a growing world awareness, but *through a heightened ability for self-consciousness and self-regulation.*

Upon this gifted stage, in its dark hour,
Rains from the sky, a meteoric shower
Of facts . . . They lie unquestioned and uncombined.
Wisdom enough to leech us of our ill
Is daily spun, but there exists no loom
To weave it into fabric.

From *Huntsman, What Quarry?*
by Edna St Vincent Millay

Our task now will be to see if we can discover the 'loom'.