

Classical Greece Foodways

The Traditional Diet

Plant Foods

In general, the figures provided by ancient sources, such as they are (and they are not figures for the amount consumed), suggest the substantial amounts of grain were eaten. Further, when food is handed out to residents, it is usually in the form of cereals. We note too that when political authorities intervene in the area of food-supply, it is usually grain that is at issue. Athenians under the democracy regularly debated the supply of grain and no other food, and were much more interested in controlling the movement and marketing of grain than of any other commodity. Finally, cereals held their place at the center of diets over a long period of time in which kinds of cereal, methods of food processing, and patterns of consumption changed. Barley lost ground to wheat, husked grains to naked grains, porridge to bread, and other forms of wheat to that which made the best bread, *Triticum aestivum*. (Garnsey 19). The barley/wheat division is in part a split between Greece and Rome. Barley was more valued in Greece than it was in Rome and Italy. It is the more drought-resistant crop, and does well in semi-arid parts such as Attica and the islands to the south and south-east. Barley did lose ground to wheat, but only gradually. A number of texts from the Roman period point to both the low status of barley and its continued consumption in the countryside in the late second and early third centuries AD. The idea that in classical Greece, around half a millennium before this period, barley was essentially food for slaves and the very poor, and fodder for the animals, has been shown to be erroneous. At this time wheat is more accurately described as a prestige food than as a staple food, and barley was the staple food for most Greeks. This is reflected in religious ceremonial, which features barley rather than wheat. The rarity of wheat in the south of Greece, and the growing taste for bread, which was better when made from wheat, gave wheat extra appeal to those who could afford to buy it. The elite preference for wheat was bolstered by the (inaccurate) judgement of medical men that barley had lower nutritional value than wheat (Garnsey 119-120).

In antiquity hulled grains gradually gave way to naked grains, principally wheats, that is, grains whose hulls were easily removed in processing. Such grains lend themselves better to breadmaking. This mini-revolution is reflected in changing linguistic usage. (Garnsey 120). But the 'Periclean plan' (Pericles was of the time of the golden age of Athens): (which consisted to abandoning the countryside to the ravages of the enemy, so as to turn Athens and Piraeus into one vast fortress) was, in the long run, a death-blow to Attica's agriculture, especially insofar as the vine and the olive were concerned : and it was on these two commodities that the country's economy largely depended.

The only cereals cultivated to any great extent were wheat and barley, and there was not nearly enough even of these: Attica was obliged to import the larger proportion of her grain from Sicily, Egypt, Thrace, and the northern Black Sea littoral. There were normally three ploughings a year, in spring, in summer, and in autumn. The plough, little improved since Hesiod's day, and

drawn by oxen (a rarity in Attica) or mules, only permitted a very shallow furrow: the work was finished off with spade and hoe. Threshing was performed in a manner still popular in certain country districts of Greece to this day: the sheaves were laid on a paved threshing-floor, in a spot well exposed to the wind, and then trampled out by a team of horses or mules attached to a central post by a long rope, and driven round and round. The grain was then ground in a mortar (this job was normally performed by the women) with the aid of stone or wooden pestles. (Flacelière 126).

From the 4th c onwards, agricultural experts began to study crop rotation and methods of soil improvement: they experimented a good deal with improving the yield by means of manure. But the main subject of their researches was in the field of arboriculture (study of trees, shrubs, vines, and perennial woody plants - wiki).

Olives were either harvested by hand, or else beaten down with long whippy reeds (again a practice still retained in parts of Greece). They were then pressed in a kind of mortar with a spout or drainage-hole at the bottom, through which the marc was run off. This by-product was used both as a fertilizer and to render wood or leather more supple. Sometimes a real oil mill was employed, made out of two stones, one fixed, one mobile, so arranged that they fitted together, in a quern-and-mortar fashion. The resultant pulp was then fed into the olive press proper. (Flacelière 127).

Among fruit-bearing trees, the most popular was, beyond doubt, the fig. The only sugar available in antiquity was that supplied by the bees. The best appreciated honey came from the hives of Hymettus. (Flacelière 127).

But what was more vital to Athens than all these luxury goods was her grain supply, since Attica produced far too little wheat and barley to feed her population. The Cornmarket of the Piraeus always had to have sufficient reserves available to meet the needs of the city and the armed forces. Extremely stringent laws defined the obligations of corn-merchants and small wholesalers, not to mention those of all millers and bakers; they were particularly stern on any kind of hoarding or stock-piling that would produce a bread shortage, and thus engineer a rise in prices. The enforcement of these laws was entrusted to the 'college' of sitophylakes, or grain controllers, who supervised not only all trade in cereals, but also the sale of flour and bread. (Flacelière 139).

The chief grain-exporting countries, Egypt, Sicily, the Black Sea littoral - were all at a considerable distance from Athens. It is safe to say that the question of corn supply always dominated Athens' policies, since the military expeditions to Egypt and Sicily during the fifth century were undertaken at least partially for economic reasons and it was her desire to safeguard the cargos of wheat from the Black Sea.

In 354, at the outset of his oratorical career, Demosthenes declared before the Athenian court:

There is, I imagine, little need to remind you that we import more wheat than any other country in the known world. Now the quantity of grain that reaches us from the Black Sea littoral is at least equal to which we obtain from all other sources combined. The reason is easily understood. Apart from the fact that the region (the present Crimea) is exceedingly rich in wheat, its ruler, Leucon, has granted special tax-exemptions to the merchants who import that wheat to Athens...The total amount of wheat reaching Athens from the Black Sea has been calculated at some 400,000 medimnoi (roughly half a million bushels). (Flacelière 140).

"Wine, cereals, and olives are what Braudel called the eternal trinity and they provided the base of the traditional Greek agricultural and dietary system." (Maher 8).

"Beans ('kyamoi') and chickpeas ('erevinthoi') were also a favorite kind of food in ancient Greece. Although the preparation of beans was often difficult, their soup ('ethnos') was extremely tasty, especially when 'a golden ladle...or one made of fig wood was used during its stirring.'" (Skiadas, Lascaratos 533).

"Several varieties of millet were cultivated but were considered 'an emergency resource for small farmers'. Similarly, oats were grown mainly as a fodder crop." (Keenleyside 265).

Legumes

The cultivation of legumes, in spite of their potentially poisonous properties, has been and continues to be important for our survival. Because of their high albumen content, legumes are a critical dietary supplement in warmer countries where meat is in short supply and difficult to store." Because people in the Graeco-Roman world probably consumed far less meat than we do today, in some cases adhering to a largely vegetarian diet except at festival times, legumes were a necessary source of protein. At the very least, legumes were an important protein supplement.

Sarpaki concludes in her study of the role of legumes in Greek history that an agricultural system could not have succeeded without legume cultivation. Good agricultural land is scarce in Greece, and crop rotation practiced with legumes is highly beneficial to Greek soils, more so than a simple fallow. (Flint-Hamilton 374)

Toxins from legumes:

"In most cases, however, the effects are much more subtle and result from long-term ingestion of a single species of legume. The most common long-term effects of toxin ingestion include inhibition of growth, pancreatic hypertrophy, hypoglycemia, and liver damage, and are more likely to affect livestock than humans, since under normal circumstances the human diet is far more varied. Among the toxins most commonly found in legumes are protease inhibitors, which interfere with the activity of digestive enzymes and therefore the ability of our intestinal tract to absorb nutrients; lectins, which cause red blood cells to agglutinate; cyanogenic glycosides, which when metabolized can form cyanide; and alkaloids, which act as neurotoxins and can cause numbness, convulsions, weakening of the limbs, and even death. Some alkaloids are psycho-active, i.e., they can be hallucinogenic. Many of the edible varieties of legumes

become innocuous only as a result of thorough cooking, since high temperatures can neutralize certain of the toxins." (Flint-Hamilton 374).

Important because Greeks were aware of these toxins and prepped legumes accordingly.... Following the harvest, Pliny recommends that the lentil pods first be roasted, then mixed with bran and pounded, if necessary, with a fragment of unbaked brick and some sand. Columella suggests that as soon as the lentils are threshed, they must be soaked in water, sun-dried, sprinkled and rubbed with silphium (Silphium was a strong spice highly valued in Roman and Greek cuisine for flavoring as well as for medicinal purposes. It became extinct in the first century A.C. Roman cooks replaced it with asafoetida) mixed with vinegar, dried again in the sun, and stored in a bin or oil jars sealed with gypsum. He also indicates that lentils can be stored mixed with ashes.

Among the most intriguing accounts of lentil are Pliny's reports of the ways it was used medicinally. According to Pliny, lentils dull the sight, an indication that there may be a mild neurotoxic effect. He reports that lentils, when only lightly boiled, can be a remedy for constipation. In fact, lentils have been found to inhibit the action of digestive enzymes, which explains how, when not thoroughly cooked, they could provide relief. Pliny also recommends that lentils be used in combination with other ingredients such as beets, vinegar, and barley to treat abscesses, ulcers, gangrene, gout, and sore throat, but he warns that they should not be used for ailments of the lungs, or for headaches, joints, or insomnia. Hippocrates recommends lentils as a remedy for ulcers and hemorrhoids.

According to Theophrastus, lentils, as well as several other legumes, become "cookable" and "uncookable" depending upon the conditions under which they are harvested, and the same patch of land in a field can result in producing both types of seeds. If two rows of lentils are planted side by side, the plants in one row might produce cookable seeds while the adjacent row might produce uncookable ones. He suggests that the weather is responsible for rendering cookable seeds uncookable, and attributes the cause to the direction of the prevailing wind during winnowing.

What Theophrastus was observing might have been the action of mycotoxins. Warm, damp conditions are highly favorable for the growth of fungi, some varieties of which produce toxins. If the lentils are harvested or winnowed on damp days, or if they are stored in damp containers, ingestion of these mycotoxins can result in serious illness, even if the lentil is cooked before being eaten. Pliny's recommendation for roasting as a necessary step in processing and storing lentil may well have been a preventive measure to kill potentially toxic fungi. (Flint-Hamilton 376-377).

Other Foods

"All solid food that accompanied bread at a meal went by the generic name of opson: green vegetables, onions, olives, meat, fish, fruit or sweetmeats. Vegetables were scarce, and (in the

city at least) relatively expensive, except for beans and lentils, which were most often mashed up into a sort of purée (etnos) or soup: this was the coarse but filling dish to which, as Aristophanes tells us, the gargantuan Heracles was especially addicted. Garlic, cheese and onions were also eaten in large quantities, especially in the army, where those more delicately nurtured found such a diet both coarse and monotonous. Olives- at least before the Peloponnesian War (431-404 BC) - were plentifully abundant in Attica; and though they mainly went to the production of oil, quite a large proportion of them were eaten in their natural state.” (Flacelière 169).

“The meal would be rounded off by a dessert (tragèma): fresh or dried fruit, most often figs, nuts, and raisins, or honey-cakes.” (Flacelière 170). In the fifth century the vegetables most popular with Athenians (and generally regarded as a luxury) were mainly imported from the two neighboring states of Boeotia and the Megarid. However, the farmers of Attica did manage to produce cabbages, lentils, peas, onions, and garlic; they even acclimatized the Egyptian gourd. (Flacelière 127). “In the north, in Thessaly and Olynthus, samples of millet have been found as well as what might be rye. Moreover, German archaeologists working near Melos have discovered what they believe to be a model of a granary.” (Maher 9).

“The four main fruits listed in The Odyssey are apples, pears, grapes, and figs. Grapes and figs were usually dried for preservation because they are better adapted to this process than apples or pears. Among vegetables, the ancient Greeks made the distinction between root vegetables and leafy greens and it appears that onions and garlic were the most popular. Herbs and spices were also present, and were not only used for food preparation, but were also often used for medicinal purposes. The archaeological evidence for the existence of these fruits and vegetables is interesting and worth presenting. At the ancient site of Dimini, there is a deposit that yielded the remains of wild pears and a large quantity of figs. Similarly, a site in Olynthus also yielded a significant quantity of figs. Furthermore, similar archaeological finds have revealed that the ancient Greeks consumed plums, apples, date palms, and pomegranates. Finally, as already mentioned in the section about wine, proof of the presence of grapes (for wine or other) has been identified in Tiryns and Sparta. Vegetable remains are much more abundant in the archaeological record than are fruits. On the mainland, the use of leguminous vegetables is proved to go back centuries before the onset of the classical period. Excavations near Sedes have produced jars containing these dried leguminous vegetables, specifically peas and beans. These and other similar vegetables were probably raised in the household gardens as they are grown today. Of the garden vegetables, only the legumes listed above could survive, so for the other types of vegetables we must rely on other forms of evidence.” (Maher 11).

Bitter Vetch

Bitter vetch seems to have been used in antiquity for food only infrequently. That it was considered famine food is demonstrated by Demosthenes' comments in *Against Androtion*, in which he reminds his audience that, during the Decelean War, the Athenians became so desperate that vetches were sold for food. Theophrastus cautions his readers against the

poisonous properties of bitter vetch. Sown in autumn, it is indigestible, but when sown early in the spring, it is harmless. Furthermore, he cautions that it causes vomiting, digestive difficulties, headaches and stomachaches, and weakening of the knees. If soaked in water for several days, however, it becomes palatable.

How can the toxicity of a plant be determined by the time of year it is sown? Perhaps, like lentils, this phenomenon results from toxic fungi that grow in late spring and early autumn but do not flourish in colder weather. A study of bitter vetch and the fungi associated with it throughout the spring and in autumn is needed before we can understand the mechanism of its toxicity. (Flint-Hamilton 378).

Grain Consumption

Eventually, around the first half of the second century BC, porridge lost ground to bread (puls to panis). The rich presided over this transition, which would also have involved the introduction of bakers into private households. (Garnsey 120). Among the naked wheats there is soft or bread wheat (siligo, *Triticum aestivum*), and hard wheat (*Triticum durum*), the ancestor of today's pasta wheat, probably then eaten mainly in the form of flat unleavened cakes cooked on a griddle. Soft wheat made the best bread, but preferred a wetter climate than the Mediterranean could offer, and was mainly grown in the transitional climates of South Russia, the Northern Balkans, North Italy, Gaul and Britain. Being not readily available, it had to be imported or specially purchased, and so was sought after by the rich from the classical period in Greek history on. I suspect that ordinary Athenians had no access to this higher-status wheat except in so far as it was distributed to state authorities. (Garnsey 121).

Athenaeus cites Greek writers of the late fifth to third centuries BC who claim to recall a time in the past when the barley cake, maza, was in active competition with wheat bread...an unidentified comic verse which runs: 'We have no interest in barley meal, since the city is full of loaves of wheat bread.' In the countryside bread was often not eaten at all. If wheat suitable for bread-making was grown, it was marketed in the city, while the peasants were left with 'inferior cereals', for which incidentally their land was quite likely to have been better suited, to be consumed in one form or another (Garnsey 121).

Athenaeus' (2-3 c AD Greek) long list of breads reflects a sophisticated urban environment. The number of varieties - no fewer than 72 are named - is in itself a sign of luxury. Add the culinary elaboration (in especially, the shaping of the bread), the regional specialties, the employment of exotic foreign cooks (Cappadocian were best), the use of bread in banquets (e.g. brazier bread), the technical literature on bread and its preparation, and it becomes clear that bread could be a high-status food. The other side to this is that bread reflects social divisions: it could be consumed conspicuously or in the most humble way and form. As we saw earlier, the comedians spoke of the poor man's bread as black, barley bread with chaff mixed in the kneading, eaten twice a day. The expenditure of extra labor-time and money on milling and sieving will turn out a product judged to be superior, a whiter bread. In late classical Greece, barley products too, meal and flat-cakes, won praise if they were white. Food preparation was already a laborious process, and if anything more special than gruel or porridge was required,

the list of tasks was much lengthened. The result of all the effort was no 'Wonderloaf.' The lightest bread known to Galen (ROMAN 129-200 AD of Greek ethnicity) still sank in water. (Garnsey 121-122).

Vetches occur as famine foods from one end of antiquity to the other. Offered for sale in the market at Athens in the early fourth century BC during a war with Sparta...Galen notes the toxicity of vetch in another work...The symptoms point to lathyrism, a disease marked by muscular weakness and paralysis, and associated with consumption of *Lathyrus sativa*, and vetches and pulses related to it." (Garnsey 38).

"Before the Athenian went out into the early dawn he would have a small breakfast (akratismos), which normally consisted of some bread - either barley or wheat - soaked in a little undiluted wine (akratos). He might also supplement this sparse fare with a few olives or figs." (Flacelière 167).

"As early as Homer's day men could be described as 'grain-eaters.' Cereals-essentially wheat and barley, which, as we know, the Athenians were obliged to import in large quantities - formed the basis of their diet. When Plato, in the Republic, wishes to draw a picture of the good, healthy, primitive life, he writes: 'As for nourishment, men will, no doubt, make themselves flour, either from barley or wheat, which they will knead or cook on a griddle, thus producing fine loaves and scones. These they will serve either on straw or nice clean leaves.' Barley flour made into flat griddle-cakes was called maza (same as the quote from source above!), and was a staple element in people's daily diet. According to one of Solon's ordinances, (Solon c. 638 BC – 558 BC) was an Athenian statesman, lawmaker, and poet), wheaten bread proper (artos), which was baked in round loaves, should only be consumed on feast-days. But in Periclean Athens (c. 495 – 429 BC) both maza and artos were, it seems certain, obtainable from the baker daily (in the old days every family had baked their own bread), though maza was cheaper, and poor folk had to content themselves with it for the greater part of the time." (Flacelière 169). "We know from Pliny, for example, that bread was prepared and consumed by all socioeconomic groups, but white bread made from wheat flour was generally preferred over darker breads or those made from barley flour. Fine, high-rising, white bread made from the flour of bread wheat, a free-threshing hexaploid wheat that is more sensitive to drought than other wheats and is therefore more difficult to grow in Mediterranean climates, was associated with the upper classes. On the other hand, coarse brown breads made from emmer wheat or barley, both of which are easier to grow and more common than bread wheat, were associated with the lower classes." (Flint-Hamilton 371).

Grain Consumption

High consumption of unleavened breads made with a high bran content is associated in the Middle East and elsewhere, including the British Isles, with various serious pathological conditions, such as iron-deficiency anaemia, dwarfism and rickets. The reason is the presence of phytate acid in cereals, especially in the bran and the germ, which impedes the absorption of vital minerals such as iron and calcium--both of which are present in wheat and barley in

adequate amounts. THUS one might expect serious health problems in ancient societies to the extent that flat-cakes, chappatis, and so on made from high-extraction (under-sieved) flour; without leavening, were consumed in quantity -- and especially where not much else was eaten. The poorer one was, the less good-quality flour one could buy, and the less efficiently that flour was sieved. Flour inefficiently sieved would have a high phytate content; and the higher the phytate content, the more derived of vital minerals the body was likely to be. Galen's (Roman of Greek ethnicity 129-200 AD) survey of bread encompasses four classes, which range from 'extra dirty' bran-bread to 'clean', fine-ground bread. (Garnsey 20-21).

Before the intro of effective weedkillers in the twentieth century, there was no such thing as a field of wheat or barley, for multiple weeds grew and were harvested along with the crop....many people did not weed out their fields since there were most likely lazy or incompetent, and in any case, there was profit to be gained in not sifting out the foreign matter when the harvest of the main crop was poor. Both farmers and public bakers indulged in this practice.

Mid-sixteenth century Italian sources are explicit about darnel's properties: The bread that has this (darnel) in it, besides disturbing the mind by making people act as if drunk, causes much weariness and nausea. The author of this work, Peter Garnsey, argued that bread described in this way with these effects should not be confined to the modern societies but should be applied to ancient as well (Garnsey 39).

"Although the Greek word maza, like the Latin puls, is usually translated as 'cakes' or 'porridge,' the word maza carries the implication of 'kneaded things other than bread' and both terms certainly included unbaked grain-pastes in the Neolithic tradition. Puls had a wider meaning than maza, since it covered pastes made from lentils and beans as well as grain.

From Pliny the Elder's Greek and Italian recipes for barley puls, it seems that in his day the term meant an oily, highly seasoned paste rather than a porridge. (NOTE: Pliny was Roman and lived around 29-79 AD)

The Greeks, he said, 'soak some barley in water and then leave it for a night to dry. Next day they dry it by the fire and then grind it in a mill....When it has been got ready, in the mill they mix three pounds of flax seeds (which produces linseed oil when warmed and pounded), half a pound of coriander seed, and an eighth of a pint of salt, previously roasting them all.' Everything was then mixed together. Italians, unlike the Greeks, did not steep their barley first; instead, they baked it and then ground it 'into fine meal, with the addition of the same ingredients, and millet as well.'

It was still one of the virtues of the grain-pastes, especially in these sophisticated forms, that they stayed palatable for quite some time. Pliny recommended packing puls into a container for long-term storage and covering it with a layer of flour and bran. (probably under ROMAN since recommended by Pliny). (Tannahill 65).

"Meal from chickpea was used to leaven barley bread." (Flint-Hamilton 377).

“Like chickpeas, meal from bitter vetch was used to leaven bread.” (Flint-Hamilton 378).

“According to Pliny, broad beans had several valuable uses. Ground up, their meal was used for making bread.” (Flint-Hamilton 380).

Animal Foods

“Meat was expensive, except for pork (a sucking-pig cost three drachmas) and the urban proletariat (lower social class, usually the working class) only ate it occasionally, after some great religious sacrifice: almost every feast-day involved a climatic scene of slaughter-house butchery, sacrifice followed by general feasting and revelry. Out in the country, on the other hand, well-to-do landowners could enjoy a regular varied diet of pork, mutton, goat’s meat, and table-fowl - not to mention the game they picked up out hunting.” (Flacelière 169).

“Most Athenians in the city were obliged to rely on fish more often than meat. It is significant that the word *opson*, which, as I have said, covered anything one ate with bread, should gradually have come to mean fish in particular - indeed, the word for fish in modern Greek derives from it. Bread and fish between them were probably the staple diet of the urban populace. Any rise in the price of sardines or anchovies at Phalerum (seaside suburb 8 km southwest of downtown Athens- wiki) alarmed the man in the street, who was scared of losing one of his regular favorite dishes. The fish-market was one of the most crowded and picturesque in the whole of Agora (central spot in ancient-Greek city-states-wiki). (Flacelière 170).

“Small domestic animals such as fowl were most likely prepared and cooked privately in the home while the larger animals, like the ones listed above (oxen, sheep, goats), were most commonly cooked publicly and eaten at festivals. In *The Odyssey*, there are countless numbers of detailed descriptions of sacrificial arrangements, and they usually involved the blood letting of the animal followed by the consumption of the meat...Meat in the Aegean area was in relatively short supply. There is evidence that the Greeks domesticated and ate the flesh of sheep, goats, swine, and cattle.” (Maher 10).

“The breeding of cattle and horses did not flourish in Attica, since there was no lush pasturage there; but it formed one of the main economic activities on the plainlands of Thessaly and Boeotia. Donkeys and mules, on the other hand, were abundant, and used for most forms of transport. Pig-breeding was widespread: Plato regarded swineherds as essential to the State, and the candidates for initiation into the Eleusinian Mysteries (see under religion more on this) can have had no trouble procuring, the sucking-pig that was an essential element in the ceremony. The mountainous frontier regions provided pasturage for numerous flocks of sheep and goats. Sheep, we should note, provided not only milk and meat, like goats, but wool too - the indispensable raw material for making clothes. On the other hand such flocks were the natural foes of all cultivation: they would be in amongst the crops, nibbling away, and for this reason certain cities passed laws against the breeding of goats. (Flacelière 128).”

“Ancient Greeks could make their choice from a quite extended diversity of meats including beef, pork, goat, mutton, wild boars, deer, hare and several domesticated and wild fowl like dove, duck, goose, pigeon, partridge, peacock, swan and pelican. Animals were usually slain by a butcher and then sold to the market.” (Skiadas, Lascaratos 534).

“Both marine and fresh water species (like tuna, mackerel, mullet, anchovy, octopus, sole, eels, mussels and oysters) were highly desired. In fact, in urban regions like Athens people tended to consume more fish than meat.” (Skiadas, Lascaratos 534).

Animal Parts Consumed

The argument against fish as a staple starts from the fact that most people were farmers, not fishermen. According to a more sophisticated line of argument, the backward state of the technology of the industry and the rarity of fish in large shoals in the area limited the size of catches and the capacity of fish to serve as a staple, certainly among ordinary people, who would have had to purchase their fish in the market. Fish supplemented staple foods in the case of fishermen and the residents of certain cities - the copious references in Athenaeus to a flourishing market for small-fry in Athens are relevant here. Salting extended the life of fish and the range of the fish-trade in Greece. (Garnsey 16).

As for the meat and other animal products: in the context of the agricultural economy of the Mediterranean region (as distinct from central and northern Europe), meat and other foods of animal origin were relatively speaking in short supply, and therefore of minor importance in the diets of the mass of the population. This is a matter of physical geography. The growing season for plant life in the Mediterranean is short. After the spring, drought quickly dries out the natural pastures, at any rate in the semi-fodder regions. Grass and fodder were not plentiful there...Under these conditions, then, cattle-raising on a large-scale was ruled out. There were oxen, but they were work animals, kept neither for meat nor for dairy products. Sheep and goats were numerous, but were raised primarily for wool (or hair), secondarily for cheese (and skins); in any case, according to the traditional picture, they were essentially transhumant, forsaking the lowlands during the hot summer months for mountain pastures. Pigs alone were kept basically for meat. (Garnsey 17).

It remains the case that there was no mass meat production and no mass meat consumption. Meat was never the staple then that it is in the West today. It was not synonymous with food. What is ‘meat and drink’ to us was ‘bread and drink’ to them. The elite had access to meat of all kinds, but were still not heavy meat-eaters. (Garnsey 17).

“Salt-provision dealers (tarichai) sold both fish and meat either smoked or pickled in brine.” (Flacelière 170).

“The most common way of preparing meat was boiling it, while adding salt and other spices to the broth. In other cases the meat was preferred roasted.” (Skiadas, Lascaratos 534).

Dairy

“As mentioned earlier, the people of classical Greece kept sheep, goats, and cattle. It is certain that the goats and sheep yielded milk, and it is probable that besides being drunk as sweet or soured milk it was also used for making cheese. Certain seals have been found that have illustrations depicting milk jars but there is no direct evidence of the milk's source. Although it is likely that some cow's milk was used, the fact that there was a significantly larger quantity of goats, has lead archaeologists to believe that goat's milk was more common. Furthermore, because milk and cheese are perishable and not easily transported, it was probably not kept in a regular supply. A closer examination of the archaeological record can produce further evidence of the consumption of dairy. For example, German archaeologists discovered a late classic relief showing a peasant driving a goat to market with what appears to be a jar of milk and a sack of cheese. Moreover, there are countless reliefs showing the milking of sheep and goats.” (Maher 12).

“...most of the milk was converted to cheese, while the main use of butter was to soothe wounds. Alternatively, milk was mixed with other ingredients as in the case of 'cyceon', which was 'a posset of Pramnian wine plentifully sprinkled with barley and grating of cheese'. Pramnian wine was a red wine of excellent quality, which got its name from the mountain Pramnos on Icaria Island.” (Skiadas, Lascaratos 534).

Fermentation

Beer

Beer did not have a bad reputation prior to the Classical period; moreover, the degree to which beer was disdained by classical authors has been greatly exaggerated. Some sources do negatively connote and disdain beer and its drinkers. Thus, Aeschylus characterizes Egyptian beer drinkers as unmanly. Aristotle, on his treatise *On Drunkenness*, is reported to have claimed that “men who are intoxicated with wine fall down face first, whereas those who have drunk barley beer lie stretched out on their backs; for wine makes one top-heavy, while beer stupefies.” Athenaeus writes that in Egypt beer “was invented for those who could not afford wine.” Nevertheless, it must be acknowledged that these classical authors and their audiences were knowledgeable of beer. (Homan 86).

Being principally a Mediterranean wine-drinking nation, the Greeks found the brewing process somewhat alien and difficult, and were quite uninterested in beer as it had very little appeal to them. This is certainly true of the privileged and ruling classes, about whom most of ancient Greek history has been written. As Bamforth (1998) states, the proletariat (of lower social class) almost certainly consumed beer, a fact that is rarely commented upon. The literature abounds with unsupported statements regarding the spread of early brewing technology out of the Middle East and eventually into Europe, the following from Toussaint-Samat (1992) being an example:

“The Egyptians followed in the footsteps of the Babylonians, and using scientific methods they became such famous brewers that their exported beer (called zythos), especially the beer made at Pelusa, was very popular with the Athenians. The Greek brought beer to Gaul, Spain and the

east coast of the Adriatic through their trade. From Illyria to the heart of Germania, beer spread very fast and became very popular.”
(Hornsey 117).

Legend has it that the worship of Dionysus originated in the “remote, inhospitable regions, north of Greece, from Thrace or Phrygia, where the preferred intoxicant was cereal beer.” As the cult migrated southwards towards Athens, beer became replaced by wine as the main cause of inebriation, and this was much more in keeping with Athenian taste. (Hornsey 135).

Wine

(Includes Greek & Roman wine-drinking culture)

Wine was a social divider even where an alternative stimulating drink such as beer (or mead) was lacking. Prices at shops in Pompeii and Herculaneum tell the obvious story that customers paid in accordance with the quality and the rarity of the wine. Still, the best wine was not likely to have been for sale at all the ordinary street-shop in these towns. Conversely, the worst, which was not much better than vinegar, would have been on tap at the lower dives. At the top of the market, various Greek wines were imported at some expense into the Naples region and Rome. Again, these wines would not have been for the poor to buy. (Garnsey 119).

The method of making wine differed a great deal from our modern procedure: there was, for instance, no prolonged or systematic fermentation in vats, so that to preserve the precious liquid for any length of time was extremely hazardous. In order to solve the problem, the wine was adulterated with salt water or various other ingredients, which calls to mind modern Greek processing of resinated wine, or retsina-though as far as is known resin was never used as a preservative in antiquity. Aromatic herbs such as thyme, mint, or cinnamon were also added, and sometimes honey. The Greeks were acquainted with the production of vin cuit (ie. by heating the must), and each region known for the superlative quality of its local cru had a different way of maturing it. (Flacelière 172-3).

“Finally, according to Cato, flour from vetch could even be used to sweeten wine.”
(Flint-Hamilton 379).

Wine destined for on-the-spot consumption was stored in leather ‘bottles’ sewn together from the skins of pigs or goats, while that scheduled for export was decanted into large baked clay jars (pithoi), which served the same purpose as modern casks, and subsequently amphoras (also of baked clay) the inner walls of which had been coated with pitch (wiki-if from plants synonymous with resin that helped to make the inner walls waterproof. The amphora-handles were stamped with the wine merchant’s name, together with those of certain local officials, whose seal was some guarantee of quality, like a modern appellation contrôlée.

Wine was seldom drunk undiluted (akratos). Before every meal a mixture of wine and water, in varying proportions, was made in a large bowl called a kratér. During the classical period the wine was similarly diluted with more or less water according to the occasion. In the Iliad, when Achilles receives Agamemnon’s envoys he says to Patroclus: ‘Take the largest kratér, son of

Menoetius, mix the wine strongly, and give drinking-cups to all.' Attendants would dip into the kratér either with long curved ladles of metal or clay, or else with oinochoai (wiki-wine jug), and go around filling the guests' cups. Wine was also employed during religious ceremonies for libations in honor of the gods; but in the cult of certain deities wine was proscribed, and these were offered libations of milk instead. (Flacelière 172-3).

"Wine is mentioned over ten times in The Odyssey, and most involve feasts or religious ceremonies of some sort. In these ceremonies, the men drank the wine in moderation and only when mixed and consumed with the food." (Maher 8).

Wine at banquets:

The word symposion, which we translate 'banquet,' more literally means 'drinking-party'. In order to understand this we must bear in mind that every formal dinner, and all banquets given by a religious brotherhood or any other association consisted of two successive stages: first came the satisfaction of one's hunger by the banquet proper, and secondly-though this part of the proceedings, despite coming second in time, was far from being regarded as secondary: it lasted far longer, and the symposion derived its name from it - secondly, there was the business of drinking (drinking wine, that is, for the most part), a process accompanied by all sorts of entertainment....guests could also have wine during their meal if they so desired. (Flacelière 173).

Dinner often began with a propôma, which is tempting to translate as 'apéritif': this was a cup of herbally infused wine that the guests passed round before they started on food. Table-napkins as we know them did not yet exist: one wiped one's fingers on pieces of bread, which were afterwards thrown on the floor (along with meat-bones and other such scraps) for the dogs of the house. These used to prowl expectantly round the tables and couches - a common motif in the figurative art of the period. (Flacelière 175).

"While the art of wine making reached the Hellenic peninsula by about 2000 BC, the first alcoholic beverage to obtain widespread popularity in what is now Greece was mead, a fermented beverage made from honey and water." (wiki)

"During the Golden Age of Ancient Greece, mead was said to be the preferred drink. Aristotle (384–322 BC) discussed mead in his Meteorologica and elsewhere, while Pliny the Elder (AD 23–79) called mead milites in his Naturalis Historia and differentiated wine sweetened with honey or "honey-wine" from mead." (wiki)

Delicacies

"One much-prized delicacy in the later period was a pig that had died of over-eating; another, a goose that had been fed (probably force-fed) on moistened grain. The eggs of the peacock, a rare and much-admired bird, were claimed to be highly superior; fox-goose eggs ranked second; and hen's eggs a distant third." (Tannahill 69).

“As a food, broad beans were considered a delicacy, but also were thought to cause insomnia.” (Flint-Hamilton 380).

Social Structure

Division of Labor

“It was the women of the house, especially the slaves, who ordinarily did the cooking.” (Flacelière 170). During the Periclean age (considered the golden age of Athens, 480-404 BC wiki) women were only present at banquets, as a rule, to wait on the male guests, and in particular to amuse them, during the latter half of the evening, with music, dancing, and seductive charm. (Flacelière 174).

“Everything a young Athenian girl learnt - which meant, basically, domestic skills such as cooking, spinning, and weaving, with perhaps a little reading, music, and arithmetic thrown in - she would be taught by her mother, or her grandmother, or some family slave-girl. The only occasions on which girls normally went out were during certain religious festivals, when they assisted at the sacrifice and took part in the procession. Poor Athenians, with nothing but cramped lodgings at their disposal were more inclined to allow their wives out. In any case, the wives often had to take a job in order to make ends meet: we know, for instance, that many of them worked as stall-keepers in the market. Athenians of the middle class, on the other hand, and those with large incomes, seem to have been far more strict in the seclusion of their women. (Flacelière 66). The wife did not bake bread herself except in the very poorest families. When Alexander’s envoys accompanied the Athenian Phocion to his home, Plutarch tells us ‘they found his domestic arrangements austere indeed: his wife was busy kneading dough, and Phocion himself took a bucket off to the well to get water for washing his own and his guests’ feet. Normally such tasks were performed by slaves. (Flacelière 68). Yet though most Athenian women did their own spinning and weaving, and many of them baked their own bread, there were, equally, large numbers who bought loaves or cakes at the baker’s.

Socio-Economic Classes

The life of a peasant-farmer, working his own land, remained the Greek ideal in Xenophon’s time (430-354 BC wiki) as it had been in Hesiod’s (c. 750-650 BC). Xenophon’s *Oeconomica* contains a hymn of praise to agriculture, which, he says, not only grows products essential for our existence, but also makes those who practice it better in body and soul alike. He is quoted, “The man who said that agriculture was the nurse and mother of all other arts was quite right. When all is well with agriculture, everything else prospers.” Xenophon seems to be saying that agriculture as an occupation produces the best citizens and the best soldiers. (Flacelière 124). The great majority of Athenian citizens lived either on, or at least from, their own land. We have seen how Xenophon was careful to distinguish between the landowner who tills his soil with his own hands-aided more often than not by one or two slaves-and the man who merely supervises the work being done in his fields. The third sort of proprietor was one whose entire life was spent in the city, and who entrusted his estates to a bailiff, leaving to him to farm them, and to forward either the yield itself or its equivalent in cash. Pericles, who was kept permanently in

the city by affairs of state, authorized his farm-bailiff to sell off the produce of his lands in Attica, using the money thus gained to defray the day-to-day expenses of a townhouse.

Socio-Economics and Food Intake

In the Politics Aristotle sets out a number of modes of life. Most people are sedentary farmers and live off the land and domesticated plants. They also have to work hardest to survive, which is an index of moral superiority. The idlest are the nomads, who cultivate mobile, 'living fields'. Hunters who live off the fruits of the chase, and others who live off banditry or fishing, make up the list. Several ways of life might be blended: specifically, pastoralism and banditry, and farming and hunting/gathering (but agriculture and pastoralism are not paired). Authors from all periods of antiquity exploit a dichotomy between civilized, sedentary farmers who live off the land and domesticated plants, and uncivilized, pastoral nomads who are 'eaters of meat and drinkers of milk.' The tradition goes back as far as Homer (7th-8th c BC). (Garnsey 65).

The wealthy were interested in diets that were slimming as indicated by the famous doctor and philosopher's treatise *On Slimming Diets* for his clientele that came from the upper-class circles in Rome and Asia Minor (Garnsey 115). Galen also wrote *On the Properties of Foodstuffs*, which was his major study on food. It was aimed at men of means. It surveyed the medical properties of the whole range of foodstuffs available in the Roman empire, and argued that good health could only be attained through correct dietary practice (Garnsey 115).

"...for fish appears to have divided rich and poor in Athens. In one fragment (of a comic fragment preserved by Athenaeus) a stingy cook is accused of giving the general public miserable fare at the festival of Aphrodite Pandemos, the goddess with responsibility for lower sexual life and prostitution - pease-porridge, or porridge made of pulses, pressed olive skins and sprats. The last item (sprats) stands for sundry tiny fish, small fry, often linked in Athenaeus with consumers of humble station. Chrysippus, no comic poet but a Stoic philosopher, wrote: 'In Athens they despise anchovy on account of their abundance, and declare that they are a food for beggars; but in other cities people like anchovy extravagantly, though it is much inferior to the Athenian.' " (Garnsey 116).

In other comic fragments the sprats are referred to as 'meagre fare' and 'mere bait along with small shrimp.' They are said to be the last thing anyone would want to buy.---all of this comes from their small size. (Garnsey 116).

If ordinary Athenians could sometimes afford fresh small fry and salt-fish, a tiddler or a piece of a larger fish if the price was right, the larger and more desirable fish, fresh or preserved - sea bream, tuna, grey-fish, eel, conger eel, and so on - were monopolised by the rich. These were, it seems, the great delicacies of the Athenian table. James Davidson argues that an acrimonious political rhetoric grew up around fish in Athens. Political opponents were charged with being hooked on costly fish, wasting their patrimony on fish. (Garnsey 117).

Rather more seriously, the texts suggest that inequality persisted in democratic Athens, and that fish was a conspicuous social divider. There were fish, and fish, small fry for the poor, conger eels for the rich.....It seems that the persistence of social and economic inequality was a highly sensitive issue in democratic Athens. The conspicuously consuming rich were thought to be showing disloyalty to democracy. (Garnsey 117).

There is more to the rich/poor divide than the individual food items: for example, the manner of preparation. Alexis has a cook who gives the following salt-fish recipe, which includes silphium, an exotic spice from Cyrenaica: 'I must wash it well. Then I will sprinkle seasoning in a casserole, place the slice in it, pour over it some white wine, stir it in oil and stew it until it is as soft as marrow, covering it generously with a garnish of silphium.' In the case of cereals and other staples too, preparation could raise the social status of a dish. (Garnsey 117-118).

*Side Note: Alexis was (Ancient Greek: Ἀλεξίς, c.394 BC – c.288 BC) was a Greek comic poet of the Middle Comedy period. He was born at Thurii (in present day Calabria, Italy) in Magna Graecia and taken early to Athens,[1] where he became a citizen. (wiki)

In both Greek and Roman contexts, the rich did not exclude themselves from lentils, beans and chickpeas. Everyone ate them in some shape or form. Beans even feature in the recipes of Apicius (ROMAN). But whereas ordinary people had recourse to legumes as virtual staples, the rich had no need to. (Garnsey 121).

A hierarchy among cereal products emerged, with white bread at the top. Throughout this long process of evolution, the rich never abandoned cereals - though their diets were always more varied than those of the poor. On the contrary, the rich were able to signal their superiority over social and economic inferiors in their consumption of cereals as of other foods. (Garnsey 19).

The late classical and early Hellenistic period witnessed a major transformation of the diet and food preparation and consumption habits of Greeks everywhere. A haute cuisine developed, marked by elaborate, specialist cooking, imported foods (and cooks), conspicuous consumption by the rich and an explosion of a wide range of technical literature on food and cookery and ancillary subjects such as farming and health. (Garnsey 74).

"Some particularly tasty and sought-after recipes were too expensive to appear on a poor man's table - for instance, the famous eels from Lake Copais, since Athenians appreciated freshwater fish no less than those, such as the tunny, that were caught out at sea. They were also very fond of shellfish and molluscs of every sort, not to mention squid and octopus, which were abundant off the shores of Euboea (an island just west of mainland Greece relatively not far from Athens; see link for map http://upload.wikimedia.org/wikipedia/commons/6/61/GR_Evia.png), and provided the fishermen of Eretria (city on west side of the island Euboea) with so valuable a livelihood that the town took a squid as a numismatic device (as currency)." (Flacelière 170). We know that in order to stop slave pastry-cooks eating the cakes and pastries they baked, their masters sometimes fitted a wide circular disc round their necks, the diameter of which was more than their arm's length, and which acted in the same manner as a muzzle. (Flacelière 131).

Until the middle of the fifth century BC the diet of rich and poor was essentially the same. The peasant ate barley-paste, barley gruel or barley flatbread, with a handful of olives, a few figs, some goat's milk cheese or occasionally salt fish for added savor....The rich drank less water and more wine; they could eat goat, mutton or pork without having to wait for a sacrificial occasion; and they might have deer, hare, partridge and songbirds to add variety. After the fifth century BC and especially during the magnificent, self-assured days of Pericles and the Parthenon, Aeschylus, Sophocles and Euripides, Athens became a center of art and culture, very conscious of its intellectual eminence. The contrast between rich and poor became apparent -which it had seldom been before-and so did the difference in diet. (Tannahill 67).

The diet of the poor and lowly was basic and repetitive, built around the staples of cereals and dry legumes, with simple and cheap additions (Garnsey 113).

"The Greek peasant family never saw much profit from their vines and olives, but in time of peace they could rely on a solid, if monotonous, diet." (Tannahill 65).

"The domestic hen was common in the Mediterranean by the fifth century BC and almost every Athenian had one, which may help to explain the poor gastronomic ratings of its eggs." (Tannahill 69).

Outside the walls of Athens in the latter part of the fifth century BC, the Attic countryside was ravaged by the Peloponesian Wars. "The small peasant was ruined, reduced to a diet of pulses, greens, and turnips, iris rhizomes, beechnut, lupin seeds (said to be sour but very nutritious), an occasional grasshopper, wild pears 'and that god-given inheritance of our mother country, darling of my heart, a dried fig.' If there was enough food for more than three of the family, said the poet Alexis of Thuri, it was unusual; as a rule, the others had to make do with a mouthful of barley-paste. (Tannahill 69).

"When we encounter legumes in literature, they nearly always seem to have been considered the food of the lower classes...This suggests that, although they were available and perhaps easily procured, they were not normally considered favorite foods...Of all the legumes, lentil is most frequently mentioned in Greek and Roman literature...According to Aristophanes then, lentils are the food of the lower classes, a food that can be used to punctuate a point about poverty or lack of sophistication." (Flint-Hamilton 374-375).

Recipes

Although no recipe books remain, titles and extracts have been preserved in other works. There appear to have been at least a dozen books titled *The Art of Cooking*, and others on *Gastronomy*, *Pickles*, *Vegetables* and *Sicilian Cooking*....the father of Greek cookery writing, however was Achestratus, who in the fourth century BC diligently transversed all lands and sea in his desire....While most Athenians who liked tuna fish had to make do with the dried or salted

variety from the Black Sea, Arcestratus laid it down that none but the fresh kind from Byzantium would suffice, and that it should only be eaten in the autumn.

As the Athenian tastes became more exotic, they also became more cholesterol-full; fortunately, olive oil has the effect of lowering cholesterol in the blood. (Tannahill 67-69).

Other Drinks

“A form of nourishment somewhere between solid food and true liquid was the kykeôn, which, besides being the ritual beverage at the Eleusinian Mysteries (see under religious beliefs below), was very popular with Greek peasants. This was a porridge-like substance made from barley meal and water, which could be given an aromatic flavor by the admixture of various herbs such as pennyroyal, mint, or thyme: a frugal dish, but one supposed to possess certain medicinal properties. Delatte, who has made a special study of the kykeôn, writes: ‘In Aristophanes’ Peace Trygaeus, who is scared that over-indulgence in fruit will give him indigestion, is advised by Hermes (Olympian god, son of Zeus - wiki) to drink a kykeôn flavored with pennyroyal. This appears to have been a traditional country recipe....A passage in Theophrastus’ Characters shows very clearly that the kykeôn was a ‘popular’ beverage, a rustic tippie (according to wiki - slang for alcoholic beverage!?!) from which the upper classes abstained.” (Flacelière 171).

“The most common drink was certainly water, and connoisseurs learnt to relish its flavor and freshness. Milk was also drunk, especially goat’s milk, besides a species of hydromel, water and honey mixed. But it was the vine that provided the drink of kings, the ‘gift of Dionysus.’”(Flacelière 172).

“The only drinks that were available to the Greeks in antiquity were water, wine, milk, and fruit juice.” (Maher 8).

Average Lifespan

The statistics may vary according to different opinions, but overall it appears that the life expectancy fell around 35-40 for women, and a little greater at around 45 for men. So, men were reported to have lived a little longer. There was a high infant death rate and a high adult death rate from the range of 20 years to 60 years. About 20% of those people that made it to age 20 lived to the age of 60.

Another source, however, reported that the life expectancy at times, could have been as low as 20 to 30 years. (I interpret this lower life expectancy that reported in other sources as possibly being due to war-the Peloponessian War or one of the plagues that occurred in the classical period of Greece.) Marriages were short because of the low life-expectancy, and nuclear families were rare since parents often died when kids were still young/er.

There was one source (by a well-known anthropologist from Harvard, J. Lawrence Angel, who was known for his studies on skeletons from Ancient Greece) that concluded that there was an

increase in life expectancy from the third millennium B.C. (Neo-Early Bronze) to the Classical Period in Greece (650-150 B.C.) and the subsequent Byzantine Period (450-1300 A.D.). He also concluded that men lived longer than women in Ancient Greece, which has been confirmed by other researchers. He asserted that the rise in the length of life was accompanied by an improvement in general health. An increase in nutrition, general living conditions with improved housing, aqueducts, and drains in addition to better hygiene that was stressed within classical Greek culture, all contributed to an increase in health and ultimately length of life. Teeth were also of an improved condition despite the increase in length of life, reflecting better nutrition in Classical Greece. It should be noted that this is dated research from 1947, but some of the most extensive research done on the skeletons of ancient Greece done by a man who is remembered for this research.

Ranges of Life Expectancy:

“Most primitive and pre-industrial populations have a life-expectancy at birth of between twenty and thirty years; the life expectancy at Athens probably fell within this range.” (Golden 323).

“We lack statistics on Classical Athenian life-expectancy, and there were clearly some very long-lived individuals in Athens and some marriages which lasted long enough to see their children marry. Nonetheless, an Athenian husband, newly married for the first time, could probably look forward to no more than fifteen years of marriage on average, provided, of course, that his wife also survived so long.” (J. Roy 7).

“The main conclusion from his statistics, applied to Athenian figures, is that the Athenians suffered a uniformly high death rate from the age of 20 to 60 so that of 500 young men of 20 not many more than 100 survived to be 60 forty years later. Having reached about 60 a man was, it appears, so tough, that he might easily live another ten or fifteen years.” (Holleran, Pudsey 45).

Social Structure in Athens 5th c. B.C.E.

Population: estimated at 40,000 citizen men eligible for ecclesia and jury; altogether 100,000 citizen men, women, children; 50,000 metics; 100,000 slaves Article's (Maryanne Horowitz's reference): (Thomas H. Greer's figures in A Brief History of the Western World, 2002; population may have been larger before war of 431 B.C.E.)

MY reference:(Horowitz).

More Precise 5th c. B.C.E. Athens Average Lifespan:

males 45, female 36.2

Average woman bore 4.3 children, 2.7 survived infancy.

Athenian men married at 30, women at 15 on average.

(Horowitz, Maryanne).

Other Social/Family Notes from Maryanne Horowitz:

Nuclear family rare. Widowed and divorced people usually remarried.

Children of divorced parents usually lived with fathers, to whose household they belonged.
Children names derived from father's family (patrilineal system)
Only a minority of children reached adolescence living with both their natural parents; most lost a parent at an early age through war or childbirth.

Article/Horowitz's Source for info above:

Sarah B. Pomeroy, et. al. *Ancient Greece: A Political, Social and Cultural History* (NY: Oxford UP, 2009) (pagination refer to this 2nd edition, but content is similar in first edition of 1999).

Another Source:

"The life expectancy of the average woman was about forty years old." (Hemingway, Colette).

From "Length of Life in Ancient Greece." by Lawrence J. Angel summarized briefly above
"Greek skeletal material ranging from before 3000 B.C. to 1300 A.D. suggests a rise in the average age at death of adults (over 17 years old) between the third millennium B.C. to historic times..." (18)

"...it is clear that the increase from the third millennium B.C. to classical times is eight years for males but only four years for females. Thus the average for the combined sexes is a six-year increase, which is statistically significant." (19)

"Some improvement in general health accompanied the increase in length of life between prehistoric and historic times. The skeletal material shows an increase in body size, a probable reduction in arthritis, and a probable improvement in teeth with the rise of civilization in Greece. Archaeological remains of houses, aqueducts, and drains together with historical evidence about food and that gathered from excavations show improvement in living conditions and in nutrition." (22)

"The conservative curves suggest that the increase was of at least four or five years at any age period, but probably the actual changes in old age, childhood, and especially infancy were much greater." (22)

"But the epigraphic data published by MacDonnell agree with Greek skeletal material in suggesting that in ancient civilizations female life expectancy was lower than the male rather than greater as is true today." (21)

Summary of Table 3 from Journal Article by Angel:

	Neo-Early Bronze (3500-2000 BC)	Classical Period (650 B.C.-150 B.C)	Avg. of Total Series (3500-1309 A.D.)
Males	34.7 years	42.6 years	39.8 years
Females	29.6 years	33.7 years	31.0 years
Both Sexes	32.1 years	38.1 years	35.4 years

Ingestion

Teeth

“Some improvement in general health accompanied the increase in length of life between prehistoric and historic times. The skeletal material shows an increase in body size, a probable reduction in arthritis, and a probable improvement in teeth with the rise of civilization in Greece. Archaeological remains of houses, aqueducts, and drains together with historical evidence about food and that gathered from excavations show improvement in living conditions and in nutrition.” (Angel 22).

“However the condition of teeth improved somewhat with the achievement of classical civilization in spite of increased longevity, so teeth were only used to confirm age estimates.” (Angel 18).

In Greek colony during Golden Age of Pericles: Differences between men and women’s teeth reflecting possible differences in diet between the two:

“According to literary sources, sex differences in diet existed among the ancient Greeks. Males were given preferential access to foods, while women were denied meat and other nourishing food items. Consequently, women were at higher risk of nutritional deficiency and disease, and may have experienced a higher incidence of malnutrition than men. Given this evidence for sex-based variation in diet, one should therefore expect to find sex differences in dental pathology in ancient Greek skeletal samples. Such differences might, for example, take the form of lower caries rates in males resulting from a greater consumption of meat and fish. Fluoride and strontium, elements present in high quantities in marine foods, are known to impede the formation of carious lesions.” (Keenleyside 266).

“Sex differences in caries rates have been observed in both archaeological and modern populations, with females typically showing higher rates than males. This has been attributed to a higher carbohydrate intake by females, earlier eruption of teeth, and behavioral differences in subsistence pursuits. Changes in salivary composition during pregnancy and lactation have also

been implicated in the development of caries in women...Sex differences in caries rates in the Apollonia sample are much less pronounced. While young adult and middle-aged females had a slightly higher frequency of carious teeth than males, statistical comparisons revealed no significant sex differences with respect to either the caries rate or the DMI, suggesting that males and females were consuming foods with similar cariogenic properties." (Keenleyside 271-72).

"The lack of marked sex differences in dental pathology is somewhat surprising given the textual and isotopic evidence for dietary differences between males and females. It is useful, however, to look at overall trends in the dental pathology data. Higher rates of caries in females and higher rates of calculus in males do hint at subtle dietary differences in the form of greater consumption of carbohydrates by females and greater consumption of protein by males. This corresponds with the stable carbon isotopic values derived from bone carbonate, in particular the isotopic spacing between bone collagen and apatite (carbonate), which can be used as an indicator of trophic level. Large differences between alpha-13C-apatite and alpha-13C-collagen reflect a more herbivorous diet, while small differences reflect a more carnivorous diet. In the Apollonia sample, the apatite-collagen spacing is higher for females than males (8.8% compared with 7.9%), suggesting greater carbohydrate consumption by females and greater protein consumption by males." (Keenleyside 275).

"Sex differences in dental pathology are not pronounced, and, as such, are consistent with the stable carbon and nitrogen isotopic data derived from bone collagen, which indicate no significant sex differences in the consumption of dietary protein. In contrast, these findings conflict with the ancient literary texts, which attest to distinct dietary differences between males and females, and with the stable carbon isotopic values derived from bone carbonate, which indicate sex differences with respect to the overall diet.

Despite the lack of strong evidence for sex differences in dental pathology, overall trends in the data, particularly when combined with the isotopic data, do hint at subtle dietary differences between males and females, with males consuming more protein and females consuming more carbohydrates. As such, the integration of dental pathology data with other types of evidence provides greater insight into the diet of past populations than reliance on one source of information alone. A greater degree of tooth wear in males also hints at sex differences in the non-dietary use of the teeth, an observation not recorded in the ancient texts." (Keenleyside 276).

Religious Beliefs

In Greece, the pig(let) was the preferred sacrificial animal for private cult. (Garnsey 17).

Homeric Heroes:

The Homeric heroes, according to Athenaeus, practiced frugality and self-sufficiency, virtues that are linked with moderation, generosity and sharing. Their cereal and meat diet was good for the body and the soul, keeping the passions in check. The heroes did drink wine, but in moderation, mixed and consumed with the food. Each hero had his own cup, and could thus

control his drinking; he did not swill his wine from a common bowl. The heroes prepared their own meal...and the meat was divided equally. Athenaeus contrasts the behavior of Homer's heroes with the primitive first men who did not share and committed crime and violence in the name of food. "Such was the state of the world before Demeter (god of cereals) ushered in the civilizing cereal. (Garnsey 73).

NOTE on Demeter from Wiki:

In ancient Greek religion and myth, Demeter is the goddess of the harvest, who presided over grains and the fertility of the earth. Her cult titles include Sito (σίτος: wheat) as the giver of food or corn/grain and Thesmophoros (θεσμός, thesmos: divine order, unwritten law) as a mark of the civilized existence of agricultural society.

The heroes of the Iliad eat only plain and noble fare, roast meat and bread, whereas in the Odyssey their diet is more varied, including vegetables, fruit, fish, birds and boiled meat. Homer is represented (by Athenaeus) as trying to protect heroes engaged in active warfare from the charge of gourmandise:

But the poet is silent about the eating of vegetables, fish and birds because that is a mark of greed, and also because it would be unseemly for heroes to spend time in preparing them for the table, since he judges it beneath the level of heroic and godlike deeds. (Garnsey 77).

Abstention from particular foods, especially meat, was practiced by some individuals and sects with a philosophical or religious orientation from the Greek archaic period to late antiquity. (Garnsey 85). Porphyry conceded that abstinence from meat was a discipline for philosophers rather than the mass of humanity, and in the context of civic life, for priests rather than lay people. In particular he acknowledges that meat was appropriate for athletes, soldiers, manual workers and those recovering from illness. (Garnsey 89).

Kykeōn was the ritual beverage at the Eleusinian Mysteries (Flacelière 171), which were initiation ceremonies held every year for the cult of Demeter and Persephone based at Eleusis (18 km NW of Athens) in ancient Greece. (wiki)

When dinner was over, drinking would begin with the usual libations to the gods, especially to Dionysus, the 'good divinity' who bestowed the gift of wine on men. A libation meant drinking a little undiluted wine and sprinkling a few drops of it on the ground, invoking the god's name as one did so. Then a hymn to Dionysus was sung. Finally a 'Lord of the Feast' was chosen, often by throwing dice. His main function was to determine the proportion of wine to water in the kratér, and to decide how many cups each guest should be required to drain....Often the party would end in general drunkenness; and certain vase-paintings shows us these revellers, in a very sorry state indeed, being laboriously helped home (half-led, half-carried) by the long-suffering women. (Flacelière 175).

On the 7th of Pyanopsion (October) took place the Pyanopsia, a feast in honor of Apollo. This was connected with the sowing, and accompanied by some odd and immemorably ancient

ritual. The god was offered a dish of beans (pyanoi) and several other vegetables, all mingled with wheaten flour; a special branch of olive, (a.k.a.) the eiresioné, was afterwards borne in procession, wrapped about with wool and loaded with first-fruits - clearly a fertility talisman - while a cheerful boys' choir sang:

'The eiresioné bears figs and fat loaves,
A small pot of honey, and oil to anoint it,
A cup of neat wine to befuddle and lull it.'

Another somewhat similar procession took place during the Oschophoria in honor of Dionysus: a group of adolescents, led by two boys who were amphithaleis (who had parents living), marched along bearing vine-branches with the grape-clusters still hanging from them.

On the 11th, 12th, and 13th of the same month there took place the Thesmophoria, or feast of Demeter Thesmophorus. In this capacity the goddess watched over the fertility of the crops and the fecundity of women. Only married Athenian women might take part in this festival, and men were rigorously debarred from it. On the first day, called Anodos (the Going Up), there were brought out to the light of day the remains of certain sacred objects (sucking-pigs, pastry shaped to resemble serpents, or the sexual organs) which had been buried some four months previously. During the second day, Nesteia ('the fast'), the women abstained from all food. On the third, they offered up to Demeter all kinds of fruits of the earth, together with bowls of broth and cheese. They ate pomegranate seeds being rites deemed favorable to conception. (Flacelière 199-200).

The Apaturia, or civic festival of the phratries (social groups-wiki of phratry) also lasted three days. The first two were taken up with sacrifices and banquets. On the third, fathers presented the legitimate children, born to them during the past year, before the members of their phratry for official enrollment. On this occasion each paterfamilias would sacrifice a sheep or a goat on the altar of Zeus Phratrios and Athena Phratia. (Flacelière 200).

Another great festival of Dionysus, as God of Wine, took place during Anthestérion (February). On the first day of this three day festival, the terracotta pithoi in which wine had been stored since autumn was opened. This day was known as 'the Opening of Jars'. On that day or the next, known as Choés (the Feast of Wine-pitchers) there was a drinking competition, at which, when the trumpet sounded, one had to down a potful of wine as fast as possible...But the third day of the festival, known as Chytroi had a quite different character: this was devoted to the dead and dying. A stew of vegetables and various kinds of grain (panspermia) was prepared in terracotta cooking-pots: this had to be consumed before nightfall. (Flacelière 202).

In April, on the sixteenth day of the month, there was the festival of Munychia, which included a procession in honor of Artemis. Cake-offerings were born to the goddess's shrine...On the 7th Apollo received an offering known as the thargelos - that is, a cake or a mash of various cereals, a first-fruit dedication from the coming harvest. The ancient wooden image of Athena Polias was carried in procession to Phalerum(part of Athens near the sea where the fish market is..my own knowledge from Wiki), and plunged into the sea; after this immersion the goddess was offered cakes of dried figs.

“Cereals were the first vegetable source that mother earth had to offer for man's nourishment. According to mythological tradition, Demeter, the Earth mother, wishing to express her gratitude for the hospitality that she received from Triptolemus' parents in Eleusis, offered the hero a chariot which was pulled by winged dragons, ordered to sow grains of corn in the earth. Triptolemus was a mythological hero, worshipped as the inventor and patron of agriculture. As an expression of acknowledgement for 'the gifts of Demeter' which Triptolemus carried to the human species there were instituted festivities in honour of Demeter called 'Thesmophoria' which took place in Athens ('Laws' 782B). In Greek language cereals are also called 'demetriaka' in honor of the goddess Demeter, who donated them to mankind.” (Skiadas, Lascaratos 533).

“Meat-eating is not conducive to the health of either body or soul. In particular, it disturbs the soul, exposing it to bodily passions and preventing us from drawing closer to god...” (Garnsey 87).

“To say that Pythagoreanism stands for vegetarianism and a belief in the kinship of all life is, however, an oversimplification. Pythagoras and his followers are credited with a number of specific taboos focused on particular animals and foods....Pythagorean avoidance of the bean (*Vicia faba*, or broad bean)....Aristotle says that Pythagoras enjoined abstention from beans either because they are like the privy parts, or because they are like the gates of Hades (for this is the only plant that has no joints), or because they are destructive...according to the elder Pliny, beans were to be avoided because they contain the souls of the dead. This explains the use of beans in memorial service to dead relatives....Aristotle's description of the bean as destructive may be a reference to its physiological effects, ranging from flatulence through stupefaction to serious illness (now known as favism). Porphyry conceded that abstinence from meat was a discipline for philosophers rather than the mass of humanity, and in context of civic life, for priests rather than lay people. In particular he acknowledges that meat was appropriate for athletes, soldiers, manual workers and those recovering from illness. (Garnsey 89).

“Bean porridge was used in religious ritual ,and it was considered auspicious to bring home a fava bean from the harvest.” (Flint-Hamilton 380).

“The inebriated, phallic god took him to Greece the recipes for his highly inebriating and aphrodisiac beverages, the “Blood of the Earth”, as well as hordes of lusty satyrs and nymphs. The alcoholic beverage was passed around, and the participants sang and danced until their bodies quivered in ecstasy. The secret of Dionysian orgies was the wine (and, originally, the beer), which must have contained “mystical” additives capable of producing such erotic ecstasy. What was in the drink that could send the imbiber into such a state? Ratsh offers the following: Poppy capsules were a constant companion of Dionysus and his erotic troops. The god occasionally wore a crown of poppy capsules.

Could it be that opium was added to the wine (beer) consumed in Dionysian rituals and mysteries?

Such an idea is in accordance with the general theme expounded upon by Sherratt in 1997. It was around the turn of the 6th and 5th centuries BC, that the cult of Dionysus gradually infiltrated classical Greek society. Once it had arrived, Dionysianism soon became widespread and influential. By the 4th century BC, the era of Aristotle and Plato, it was the most widely practiced of all Hellenistic religious observances.” (Hornsey 135-136).

Theatre

It seems quite certain that for such lengthy sessions the Athenian audience (despite that well-known Athenian moderation in such matters) would bring along something to eat and drink in situ. Sometimes particularly generous chorégoi (“rich citizens whom the State required to recruit, support, and equip, at their own expense, the various Choruses” p.205) would make distributions of cakes and wine to the crowd. (Flacelière 207). Hiersoskopia was a method of divination probably imported from Etruria, which consisted of examining the entrails of a freshly slaughtered animal and deducing the divine will from the signs so revealed. There were three things to be observed in particular when examining the liver: the state of the lobes, the gall-bladder, and the portal vein. (Flacelière 218). “The olive tree was Athena's gift to the Athenians after she defeated Poseidon for possession of Athens. It therefore represented the strength, peace, and continuity of the Greek state. Although it is of great nutritional importance, its cultural significance must not be overlooked.” (Maher 10).

Weddings

Nuts and dried figs were showered on the bride - a ritual, which was also, as we have seen, performed on the entry of a new slave into the household. She was offered a part of the wedding-cake, made from sesame and honey, together with quince or a date, both symbols of fecundity. (Flacelière 64).

Recipes

see also bread recipe from Pliny the Elder under grain prepping

The most popular Spartan dish, (I know you want Athens but I think this is an interesting food...), which they took in their communal ‘messes’ (syssitia-in Ancient Greece, a common meal for men and youths in social or religious groups -wiki), was the famous black broth, a sort of thin stew the ingredients which included pork, blood, salt and vinegar. (Flacelière 170-171). **My note from reading: This dish had a negative connotation by Athenians. Athenians seem to have considered parts of Spartan culture to be savage-like. Athenians considered themselves more refined**

“The Athenians were also responsible for inventing the original horsd’oeuvre trolley, which other Greeks adduced as proof of their miserly disposition. An Athenian dinner, claimed Lynceus, was an insult to a hungry man. ‘For the cook sets before you a large tray on which are five small plates. One of these holds garlic, another a pair of sea urchins, another a sweet wine sop (probably some scraps of wine-soaked bread or marinated fish), another ten cockles (clams), the last a small piece of sturgeon (fish). While I am eating this, another is eating that; and while he is eating that, I have made away with this. What I want, good sir, is both the one and the

other, but my wish is impossible...Such a layout as that, he concluded, 'may seem to offer variety, but is nothing at all to satisfy the belly.'" (Tannahill 69).

Diet Recommendations by Plato

Overview:

Plato (5th - 4th century BC), one of the most important philosophers of Greek antiquity, left a valuable spiritual heritage, compiled in his famous dialogues. Among other philosophical concepts, Plato's works are imbued with the fundamental principle of moderation. This spirit is characteristically evident in his references to human diet. According to the philosopher, a moderate and thus a healthy diet, consists of cereals, legumes, fruits, milk, honey and fish. However, meat, confectionery and wine should be consumed only in moderate quantities. Excesses in food lead to ailments and therefore should be avoided. Plato considers physicians responsible for the regulation of human diet, for medicine is a science and not merely an art as in the case of cookery. The dietary pattern presented in Platonic dialogues shares many common components with the highly-reputed Mediterranean diet." (Skiadas, Lascaratos 532) "Ancient Greeks paid special attention to nutritional matters because they believed that the proper diet is a precondition for corporal and intellectual well-being. It was everyday experience that made them recognize the importance of diet in both health and illness. In fact, many diseases were attributed to 'unhealthy' diet and nutritional intervention was a very common means of treating the various human ailments." (Skiadas, Lascaratos 532). "The nutritional references in the Platonic dialogues correspond totally to the moderate atmosphere prevailing in Greek antiquity, which constituted the moral symbol of all aspects of intellectual and social life.

Many passages in the Platonic texts prove that the philosopher recognised the importance of the right nutrition for corporal development: 'For there ought to be no other secondary task to hinder the work of supplying the body with its proper exercise and nourishment'" (Skiadas, Lascaratos 533).

Olive Oil:

"According to Plato, although olive oil 'is helpful,' it should not hold an important place in the diet, a notion, which is in contrast with the broad cultivation of olives in antiquity. In fact, olive and sesame were the primary sources of oil. Olive oil was used for anointing the skin as part of the body's hygiene. Protagoras emphasizes that 'olive oil is good for the outward parts of man's body, but at the same time as bad as can be for the inward'. For this reason 'all doctors forbid the sick to take oil, except the smallest possible quantity, if one is going to eat'. As stated by Protagoras, the utilization of olive oil should be restricted to small quantities added to meals for reasons of taste. He also considered its application necessary in therapeutics as a 'sore labour's balm'. Olives accompanied the consumption of bread and pies, so as to eke out the food (?)." (Skiadas, Lascaratos 533).

Cereals:

“Contrary to olive oil, wheat and barley-meal are praised by Plato as ‘good and beneficial food’ because with these ‘the race of mankind is most richly and well nourished’. The stress given to the consumption of cereals is particularly shown in terms like ‘sitia’, ‘sitevo’, ‘sitizo’ and ‘sitos’ (‘sitos’ means wheat), which were used commonly to include all kinds of nourishment. Cereals were the first vegetable source that mother earth had to offer for man’s nourishment...Wheat, barley and our which derive from corn were considered principal kinds of nourishment and for that reason the trading and distribution of these products to citizens was regulated by legislation. Pies made of barley meal and wheat flour constituted one of the most fancied meals.” (Skiadas, Lascaratos 533).

“Fruits were consumed after the main meal (‘metadorpia’) ‘as welcome remedies for the sufferer from repletion’. Critias, in the dialogue bearing his name, considers the inhabitants of Atlantis abundance of fruit on their island. Figs, dried or not, pears, apples, pomegranates, and sorb-apples (?) were some popular fruits. The treatise ‘Laws’ mentions a remarkably strict legislation concerning harvesting and stealing of fruits.

In the Platonic texts other foods of vegetable origin are also quoted such as dried fruits (‘tragimata’), bulbs (‘Critias’ 115A), onions, greens, acorns and myrtle-berries.” (Skiadas, Lascaratos 533-534).

Meat:

“It is not known whether Plato had a preference for vegetable nutrition. In his works, though, an underestimation of meat as a food is obvious, a stand which is in accordance with the Orphic and Pythagorean teachings. From an ontogenetic point of view, as delivered to us in ‘Timaeus’, the vegetable kingdom existed before the animal kingdom, a view which totally coincides with Empedocles’ theory. Consequently, these people were by necessity vegetarians. There was a time when people, adhering to the Orphic principles, abstained from the consumption of meat because they considered it unfit to eat. They offered to the gods ‘pure sacrifices’ such as sweet-meats and fruits with honey, thus avoiding desecration of the altars with animal blood. This attitude derives from the Orphic faith in reincarnation of both humans and animals. Plato visualized a republic where citizens would base their diet on vegetable foods and ‘... so, living in peace and health, they will probably die in old age’. Unlike in a healthy city, in a human society where there is consumption of meat, the presence of physicians would be indispensable.” (Skiadas, Lascaratos 534).

Dairy:

“Although milk was rarely drunk, Plato claims it should hold a prominent position in the dietetic preferences.” (Skiadas, Lascaratos 534).

Fish:

“The extended reference to fishing in ‘The Sophist’ (218E- 221C) implies the great importance given to fish and game as a nutritional variety. It is furthermore stressed that ‘...most of the Greeks arrange for their food to be derived from both land and sea’.” (Skiadas, Lascaratos 534).

Confectionery:

"In several passages in 'The Republic' we are informed that many sweetmeats ('idismata') were widespread at the time when Plato's works were written. Attic pastry were also popular while in book V of the same treatise Plato mentions 'popanon', a pancake made of grape syrup and sesame, which was often used in sacrifices. According to Plato confectionery is harmful for the body and does not correspond to a healthy way of living.

Salt:

The addition of salt in the food represents a usual practice in ancient Greek diet. From the physician Eryximachus we learn of the existence of a work where the usage of salt is praised.

Wine:

Plato's views on wine occupy an unexpectedly large space, mainly in the two first books of 'Laws'. Wine drinking was extremely common at the time that the Platonic dialogues took place. Plato cites the fable of Dionysus, god of wine and entertainment, in a lively way. According to tradition, Dionysus' stepmother, Hera, caused paranoia to the god who, wanting to avenge, gave wine to man '...as a punishment, to make us mad'. Nevertheless, according to the estimation of Plato, Dionysus' gift to humans 'is a medicine given for the purpose of securing modesty of soul and health and strength of body.' Wine is considered 'heating to the soul as well as the body'. It is also a 'medicine potent against the crabbedness of old age'.

All the above, of course, presuppose self-control and obedience to the law, 'for to fight drunkenness...would be a more formidable task than to fight enemies'. The consequences of drunkenness are outlined in many of Plato's works. In 'Symposium', the physician Eryximachus comments: 'The practice of medicine, I find, has made this clear to me that drunkenness is harmful to mankind'. Inebriety lures people beyond logic to pleasure and inevitably leads to abuse. Excessive drinking withdraws moral repression and leads to loss of self-control and illogical behavior Acts of violence could also spring from a state of drunkenness. It is worth noticing Plato's incitement towards husbands to demonstrate self restraint in the consumption of wine during the period of bearing children because the quantity of the semen is unfavorably influenced with the inevitable consequence of giving birth to offspring with psychosomatic deficiencies: '...it is not right that procreation should be the work of bodies dissolved by excess of wine. Wherefore he must be very careful...especially during the time he is begetting to commit no act that involves either bodily ailment or violence and injustice; for these he will inevitably stamp on the souls and bodies of the offspring, and will generate them in every way inferior'. (Skiadas, Lascaratos 534).

Water:

Concerning water, Plato states that it is 'cheapest, though best'. (Skiadas, Lascaratos 534).

Excesses in nutrition and their consequences

According to the Platonic ideas the diet should be temperate. The variety of nourishment results in corruption and illness. Just like simplicity in music brings sagacity to souls, plain food brings health to bodies as well. As opposed to the limitless desire for food and drink, self-restraint is

considered by the philosopher to be the power of compliance with logic. The Pythagorean School had enforced a series of dietary restrictions for consolidation of the spirit of self-restraint and healthy living. An advocate of these views was Plato, who also associates moderate nourishment with longevity.

Excessive intake of food is castigated as an unhealthy habit. The passion of greed and unrestrained satisfaction of instincts is inherent in man. Plato condemns debauchery explicitly as he considers it an underlying reason of illnesses in the human body. An obese man is likened to 'an idle beast, fattened in sloth!'. Plato repeatedly emphasizes that obesity leads to corporal diseases, a concept which is also found in the famous Hippocratic aphorisms: 'those who are constitutionally very fat are more apt to die quickly than those who are thin' and 'when more nourishment is taken than the constitution can stand, disease is caused'. Moreover, sudden modification in the habits of eating tantalizes the body and the organism has difficulty in familiarizing itself with these changes: '...should a man be forced again to change back to one of the highly-reputed diets, how he is upset and ill at first, and recovers with difficulty...'. Plato believes that long-term dietetic restrictions are strenuous because they disorientate the citizen from work and his everyday chores and eventually they disorganize society itself. As an example is mentioned the sophist and trainer Herodicus, who suffered from an incurable disease and lived strictly attached to a certain way of nourishment 'suffering the tortures of the damned if he departed a whit from his fixed regimen'. It is not strange that Hippocrates also recommended abstinence from such diets, for 'a regimen carried to the extreme of restriction is perilous; and in fact repletion too, carried to extremes, is perilous'. (Skiadas, Lascaratos 535).

It should be noted that Plato considers a sign of a society's decline the need for medical contribution in cases of diseases caused by dietary deviation and sloth. Nevertheless, the philosopher regards physicians as responsible for creating an attitude towards healthy diet. Plato strongly suggests that the therapeutic approach to human diseases should be made through the regulation of diet rather than with medication: 'Wherefore one ought to control all such diseases, so far as one has the time to spare, by means of dieting rather than irritate a fractious evil by drugging'. The physician's aim should be to reinforce the patient's body as well as his spirit with the contribution of diet. (Skiadas, Lascaratos 536).

According to Philemon of Syracuse, during the classical period Greeks usually had four meals daily: a light breakfast ('akratisma'), a mid-day meal ('ariston'), an early evening meal ('hesperisma' or 'dosperos') and a later dinner ('deipnon' or 'epidorpis'). Olive oil, cereals, legumes, pulses, dairy products, honey, fish, moderate quantities of meat and several kinds of fruits constituted the basis of their nutrition. It sounds rather strange that Plato seems to disapprove of the consumption of high quantities of olive oil, although it is well known that the cultivation of olive trees held a fundamental role in ancient Greek agriculture. On the other hand, he encourages the consumption of cereals, which he thought had a 'divine' origin. The influence of the Pythagorean School is clearly depicted in his preference to vegetables and fruits and his urge to abstain from meat, which he claims to be associated with obesity and illness. It is Plato's

belief in reincarnation of souls that might explain his reluctance to approve the use of animals as a nutritional source. The philosopher also regards fish as superior to meat, and dairy products important for human nutrition. (Skiadas, Lascaratos 536).

Diet recommendations for women:

Medical treatises from the first and second centuries AD, excerpted by the fourth-century physician Oribasius, nicely illustrate the joint operation of the three factors in the prescription of a regime appropriate for girls and women. So Rufus of Ephesus, who lived in the early second century, wrote:

When they are older and growth has all but stopped, and when young girls out of modesty no longer want to play childish games to the full, then one must give much more continuous attention to their regimen, regulate and moderate their intake of food, and not let them touch meat at all, or other foods that are very nourishing. (Oribasius, Liber Incertus 18.10). (Garnsey 101).

The author, Athenaeus of Attaleia (mid-first century AD), sees his task as laying down a regimen of food, exercise, and indeed work that will postpone the dangerous period of puberty (where they get sexual desire and increase appetite). He engagingly advises mistresses of the house (ie housewives) to look at their servants: In effect, women who lead a soft and delicate life would do well to watch those who earn their keep, to see what a difference there is between themselves and those women in matter of health in general, and conception and ease of childbirth in particular, because their diet is simple and they exercise their bodies. (Garnsey 102).

He advises that women “get good exercise wetting the flour and kneading the dough, and making beds. If a woman takes this kind of exercise, she can eat with more pleasure and acquire a better color.” The simple diet becomes in the mouth of another medical writer cited by Oribasius, Galen, “the bare necessities.” He says...”Pregnant women should above all else avoid repletion, and not be lazy at taking exercise....servant girls...are not stuffed beyond due measure with food, since they can scarcely get the bare necessity for themselves. Let that be a lesson to pregnant women.” (Garnsey 102). “Doctors were concerned to limit the food consumption of females, whether rich or poor, young or mature. This discussion is about needs of women, but those needs are not seen through the eyes of males and reflect the higher status and superior power of men.” ***My note influenced by the text: Keep in mind this is recommendations from high-society dr’s...we do not know “how far their opinions were disseminated down through the social hierarchy.” (Garnsey 103).

“Note for example these words of Xenophon in relation to the diet of girls elsewhere than in Sparta: ‘In brought up in the approved fashion live on the very plainest fare, with a most meagre allowance of delicacies.’” (Garnsey 103).

“Aristotle say in the History of Animals that women need less nourishment than men.” (Garnsey 106).

Food and the Four Humors Medical Theory:

“Health, it was believed, was a product of the harmony of four bodily fluids or humors, which in turn had to be understood in connection with the four elements and the four primary qualities. Food and drink were one of several factors that influence the humors and preserved or undermined health. The task of the physician was to regulate the daily life of the patient, including his or her consumption of food or drink, in such a way as to maintain the normal balance of the humors. So we routinely find in the medical writings such statements as this, cited by Oribasius from Athenaeus of Attaleia:

The cold and wet constitution of the body of the woman has to be corrected by a regime which is weighted towards the hot and the dry. Women should therefore avoid the cold and the wet, air or places, and choose foods that are drying rather than moistening, as in any case nature itself teaches us, since women show very little needs of liquid. Women should take little wine because of the weakness of their nature. (21.1-3)

Or, in more detail, from Rufus:

Everyone agrees that the body of a woman is wetter and colder than that of a man. So she must follow a regimen which is hotter in order to re-establish the equilibrium which is disturbed by the excess of their temperament. So they have to exercise themselves just as much as men must....Baths are less suitable for women, because they are wet. On the other hand, drying baths, that is to say, those of mineral water, are better for women than for men....As for suitable foods, they are those which heat and dry, while those which act in the opposite way are very harmful to them. So it is necessary to avoid foods that will make them colder and wetter: they include, among fish, eels, sheat-fish, sturgeons, turbot, and, in general, river fishes; among meats, they include those that are fat and come from new-born animals.”

Infant feeding practices:

Let us consider infant feeding practices. Nobody understood colostrum, nobody before the nineteenth century, in fact. Colostrum is three times as protein-rich as mature human milk and its antibodies protect the neonate from bacterial infections. Here is what Soranus has to say on the subject:

“...one should feed with milk from somebody well able to serve as a wet-nurse, as for twenty days the maternal milk is in most cases unwholesome, being thick, too caseous, and therefore hard to digest, raw and not prepared to perfection.”

For the weaning stage, Soranus talks initially of ‘crumbs of bread softened with hydromel (honey and water) or milk, sweet wine, or honey wine,’ but later of ‘soup made from spelt, a very moist porridge, and an egg that can be sipped.’ Galen prescribes first bread, then ‘vegetables and meat and other such things.’ With both authors, the diet is for a time exclusively cereal, and one wonders how long this was persisted with. Cereal was clearly the basic weaning food.

Absence of colostrum, early weaning, weaning foods low in nutrients, late weaning: all of these undermined the nutritional status and life chances of the small child. (Garnsey 107).

“Medicinally, bitter vetch seems to have been something of a panacea according to Pliny painful urination, flatulence, liver problems, indigestion, and other digestive difficulties are purportedly relieved by eating ervum that has been roasted and mixed with honey. According to

Hippocrates, vetch causes flatulence and pain when eaten boiled as well as raw. Aristotle too recognized this property of vetches, advising that because it causes flatulence, cattle should be fed vetch when they are being fattened.” (Flint-Hamilton 378).

“Other factors that have been linked to the development of enamel hypoplasia include the stresses associated with weaning. Infant feeding vessels recovered from child graves in Greece suggest that weaning may have begun relatively early, and literary sources indicate that cereals were the basic weaning food among the ancient Greeks. A recent stable isotopic study of infant feeding practices at Apollonia has revealed that infants were weaned onto a diet of cereals and dairy products, foods that would have predisposed them to nutritional deficiencies.” (Keenleyside 275).

Locomotion

Recommended Physical Exercise

“Greek doctors attached considerable importance to personal hygiene, care of the body, and physical exercise. Men (and in Sparta, at any rate, women too) regarded the practice of gymnastics as indispensable to one’s general health and well-being (euexia). Socrates, himself, at a comparatively advanced age, took a course of physical training ‘so as to reduce his belly’ which was more than its proper size. (Flacelière 145).

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