China's foodways began to take shape at the end of the last Ice Age. The glacial period was extremely cold and dry. As it broke, from 15,000 to 8000 B.C.E., conditions rapidly ameliorated. By 10,000 B.C.E., China was becoming warmer and wetter. Plant growth increased, making agricultural innovation more reasonable. As in the Near East at the same time, agriculture seems to have followed rapidly—stimulated, presumably, by increases in population, environmental productivity, trade, and communication.

Rice (Oryza sativa) was domesticated in the Yangzi Valley by 8000 B.C.E. By 5000–6000 B.C.E., it was abundant, and modern varieties had emerged: the long-grain “indica” types, the short-grain, tougher “japonicas,” and probably the sticky rices. (These latter, miscalled “glutinous,” are sticky because of a mutant form of the starch amylose.) Foxtail millet (Setaria italica) was domesticated farther north, by 6000 B.C.E. at the latest. It remained for millennia the staple of the areas too dry for rice agriculture. By 4000 B.C.E., it was joined by panic millet (Panicum miliaceum), which appeared about the same time in eastern Europe, having probably spread from China across central Asia. (The term “millet” refers to any small-seeded grain; several species of “millet” grow in China.) Foxtail millet is a more broadly...
tolerant crop than rice, or indeed than almost any other grain staple. It grows best in hot summers (being a C4 plant) but is widely tolerant of different soils and water regimes. Rice, though less responsive to high heat (being a C3 plant), is an extremely efficient photosynthesizer, producing huge crops, even in cloudy conditions. C4 plants, as opposed to C3, have a metabolic pathway that allows more rapid growth in hot weather but less rapid growth in cool.

The earliest animal domestication reported so far is of pigs at Zengpiyan in Guangxi, a site dated to 7,600–9,000 years ago. The east Asian pig is the same species as, but a very different variety from, the Near Eastern one, and represents an independent domestication. Well before 6000 B.C.E., large villages with complex cultures and abundant domesticated rice occurred widely in the Yangzi Valley and elsewhere.

By 4000 B.C.E., chickens, pigs, sheep, dogs, and Chinese cabbages (Brassica campestris) were found widely. The chicken is native to southeast Asia and southern China. Its first archaeological occurrence, however, is in the north, near Xian; it may have once been native there (considerably older bones of wild chicken-like or pheasant-like birds have been found), or it could have been domesticated in the south and spread northward (Anderson, 1988). Sheep possibly were independently domesticated in China and in the Near East.

After this point, China’s Neolithic cultures developed dramatically. Huge, rich, intensively agricultural sites are found throughout the modern eighteen provinces, as well as in neighboring areas. (China traditionally had eighteen provinces, today the eastern and southern parts of the country; China today has twenty-two provinces.) Agriculture spread rapidly into southeast Asia; Taiwan was settled by farmers, probably Austronesian-speakers ancestral to the modern “Taiwan aborigines,” by 4000 B.C.E. The pig quickly became the dominant animal. By 3000 B.C.E., it was supplying 90 percent of the meat in the core areas,
and it still supplies 90 percent of the meat in those areas today.

Meanwhile, wheat and barley spread across Asia from their domestication sites in the Fertile Crescent region of the Near East. By 5000 B.C.E. these grain crops were in Afghanistan. Their dates of arrival in China are obscure, but they were well established by 2000 B.C.E. Barley never became important, except in Tibet, but wheat was to revolutionize Chinese food in historic times, the period since 2000 B.C.E. Goats—a characteristic Near Eastern species, not found wild anywhere near China—appear about that time. Cattle, probably from the Near East, and water buffaloes, probably domesticated in or near the Yangzi Valley (and independently in India), may have been available by then, but their record is obscure. Finally, the horse, domesticated in the steppes of Ukraine and western Russia by 4500–4000 B.C.E., also reached China by about 2000 B.C.E. (the exact time being unclear).

All these introductions are related to the rise of civilization in China: the controversial “Xia dynasty” (c. 2200–1500 B.C.E.), whose existence is still sometimes debated, and the better-known Shang dynasty (c. 1500–1000 B.C.E.). These civilizations culminated a long-standing trend: the rich got richer, the poor poorer. The elite had great quantities of pork, grain, and wine, as well as other foods, while the ordinary people lived humbly on millet and coarse greens such as mallows (Malva spp.).

The origin of minor plant crops is poorly known. Sporadic finds of cultivated buckwheat are reported from very early archaeological levels in Japan, but are questionable. Certainly, buckwheat was cultivated in the centuries before the Common Era in China and Japan; it probably was domesticated in northwest China’s mountainous areas. A problem in interpreting China’s food history is the massive disturbance to most sites. Millennia of agriculture, rodent burrowing, tomb digging, flooding, and the like have scrambled the record. Thus, peanuts—a New World crop known to have been introduced to China in the sixteenth to seventeenth centuries—turn up in Han dynasty sites, probably thanks to seed-burying rodents. By 1500 B.C.E., written records are available, but the earliest of these mention only staple grains and animals.

The history of plant domestication in China becomes brilliantly clear in the Zhou dynasty (ca. 1000 B.C.E.–221 B.C.E.). The Book of Songs, a collection of Zhou folk and court poetry, records dozens of plants. This work was edited in final form by Confucius himself, in the fifth century B.C.E.—according to historical records that we have no reason to doubt. Its 305 songs mention more plants than the whole of the Bible, as well as 88 animal species (some mythical). Coming from...
north China, the songs reflect a world dependent on millets. Wheat is mentioned in passing a few times. There were beans, cabbages, gourds, melons, and a huge host of vegetables and fruits. Pigs and chickens were the animals of daily use, but China was still rich in game and fish at the time.

Soybeans enter the Chinese record in early Zhou, supplementing adzuki beans, which had been grown for centuries or millennia. Soybeans originated in far north China and Manchuria, and seem to have been domesticated by non-Han peoples there, possibly the bearers of the mysterious Hongshan civilization around 2000 B.C.E.

By this time, brewing was a major art form. Chinese jiou, translated “wine” but technically beer or ale, was invented long before the Shang dynasty. It was made from millet, and in the south (later, at least) it was made from rice. Shang wine vessels were of heroic proportions, and all sources agree that feasting went with heavy drinking. The histories allege that the last emperor of Xia was a debauchee who had a lake of wine and a forest of meat (i.e., a forest in which strips of meat were being wind-cured hanging from trees—a sight one could still see within living memory). This is generally taken as an exaggeration by Shang propagandists after Shang overthrew Xia. Be that as it may, heavy drinking was a part of Shang feasting, and is well documented for Zhou.

A major guide to foodways are the Zhou ritual books, the Zhou Li and Li Ji. These were compiled from damaged sources in the Han dynasty (206 B.C.E.–220 C.E.), but probably reflect Zhou reality as far as food is

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**CHOPSTICKS**

Chopsticks are first mentioned in Zhou Dynasty texts. These small sticks, used to pick up pieces of food, probably go back to the very remote past. They have conditioned Chinese food preparation; foods are virtually always cut, or made, into pieces small enough to be easily manipulated with them. Routine use spread in early historic times to Korea, Japan, and Vietnam. The Chinese name is kuaizi, “little quick ones,” whence the English name—“chop” being pidgin-English for “fast.” See sidebar on page 386.
concerned. These sources confirm the importance of wine, mentioning many types, including herb-flavored ones. They also indicate that China, like other ancient civilizations, was deeply devoted to sacrificing animals and then eating them. Elites seem to have run through hecatombs of pigs, cattle, sheep, deer, and even horses. The trinity of pig, sheep, and cattle seems to have been dominant in sacrifice, indicating a possible indirect link with the Romans and their suovetaurilia. Chickens and ducks were not neglected. Old people were honored with rich, easily digestible, fatty cuts of meat, and the same favors were shown to the revered gods and ancestors. The Li Ji contains long passages on agriculture and on conservation.

In Han, new crops, notably grapes, came from West Asia. More important was the rise in food technology. Flour milling and oil production progressed dramatically. Bean curd and soy sauce production seem to have started about this time. (Fermented sauces were known in Zhou, but their exact nature is unclear.) Distilling of alcohol seems to have been invented in later Han. By Han, also, the idea of using food as medicine was established. The earliest surviving medical books from China are of Han date, and they have much to say about nutrition and diet therapy, always important in famine-torn China.

After Han, central Asian influences became very strong, and a flood of western foods entered China. The Silk Road, the great trade route across central Asia, linked East and West; its golden age stretched from Han through the Tang (621–960), Sung (960–1279), and Yuan (1279–1368). Persian bread, spinach, walnuts, broad beans, and even obscure herbs like fenugreek and cumin came to China, accompanied by Galenic medical concepts and Indian Buddhist foodways. Perhaps most important was the spectacular elaboration of wheat products. China, fed on millet mush and boiled rice until Han, became a land of noodles, breads, filled and unfilled dumplings, and countless other complex wheat preparations. Gradually, during this period, wheat replaced millet as the staple of the north.

The climax came in the Mongol Empire—China's Yuan Dynasty (1279–1368)—when the court in Beijing was serving dishes from Arabia, Persia, Turkistan, Kashmir, and indeed the whole Mongol-dominated world. Nomadic Mongol dishes, such as roast wolf, vied for place with Arabian delicacies such as rack of lamb marinated in saffron and rosewater (Buell and Anderson). Not until the twentieth century would the world again see such eclectic dining.

A nativistic reaction in the Ming dynasty (1368–1644) rehabilitated a Chinese food vastly more sophisticated and complex than that of Han or even Tang. The rise of an affluent middle class, especially in Sung, had led to the development of haute cuisine. Merchants and bureaucrats vied in feasting. Markets were well stocked; internal and external trade flourished. Broad regional styles had long been important—the meat-eating northwestern contrasted with the fish-eating east and south, for instance—but now every city and many a town developed its own distinctive dishes and food specialties. Tea and distilled liquor had joined wine as common drinks, and gourmetship in tea and wine took extreme forms. Chinese food depends heavily on a wealth of soybean products. The soybean seems to have come from non-Chinese peoples in north China and to have been borrowed by the Chinese in the Zhou Dynasty. At first it was a low-class food, but soon cooks learned how to use it to advantage. Apparently the first gourmet use was in fermented thick sauces (jiang), ancestral to Japanese miso. At some early point, brewed liquid soy sauce (dou yi) was invented, as well as the black-fermented soybeans popular in south China. These basic products have spawned a spectacularly diverse array of local ferment products, often using wheat flour, other bean species, vegetables, chilies, spices, or other ingredients. Soy ferments were often the only source of Vitamin B12, a necessary nutrient, in the diets of the poor. Bean curd (tofu, doufu) has long been said to have been invented in the Han Dynasty; there are no unequivocal references until much later, but recent evidence supports the Han date. Tofu is made by grinding soybeans with water, boiling the resulting milk, and then coagulating the boiled milk with calcium phosphate, alum, or some similar coagulant substance. The result is highly nutritious, and, if made with a calcium substance (as it almost always is), a very important calcium source. The oil and certain nutrition inhibitors go out with the waste water, leaving a low-calorie, high-nutrient product. It has served as the protein source of the poor through much of history. The skin that forms on the boiling milk, the lees, and other related products are all used, especially in vegetarian cuisine. With rising affluence, tofu consumption has declined in China—but risen explosively in the health-conscious western world. H. T. Huang provides a definitive history of soybean products in China. (See also Anderson, 1988.)

**TOFU**

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The most important food event of Ming, however, was the rise of sea trade, and especially the coming of contacts with the New World. Much of China, especially in the south, was not suitable for rice or wheat. Millet was at best a poor substitute. Suddenly, maize, white potatoes, and sweet potatoes appeared. Maize was common before 1600.

The great spread of New World crops came in the subsequent Qing dynasty (1644–1911). Sweet potatoes reached China by the late 1600s, and white potatoes by 1800. They continue to spread. Peanuts, tomatoes, chiles, guavas, and other New World crops revolutionized nutrition by introducing productive, easy-to-grow, nutrient-dense foods. Chilies, in particular, are extremely rich in vitamins and minerals; they, and the other New World crops, were critical in allowing the population explosion that has taken China from fifty million people in early Ming to today’s 1.25 billion. Travelers in nineteenth-century China remarked on the availability and cheapness of a varied, nutritious diet.

Yet, China remained the “land of famine,” in Walter Mallory’s telling phrase. Deforestation and consequent flooding, overhunting, overfishing, and other environmental devastation led to disasters. Unfortunately, the pace of abuse greatly accelerated through the twentieth century (Brown; Edmonds).

See also Japan; Korea; Noodle in Asia; Rice; Southeast Asia.

BIBLIOGRAPHY


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BEIJING (PEKING) CUISINE
The cuisine of the city of Beijing is rooted in the broader tradition of north Chinese food. As the capital of China for most of the last eight hundred years, Beijing has been the beneficiary of two additional forces. First was the development of an imperial court cuisine perhaps unrivaled in the world. Second, as political center of China, Beijing has been a magnet for people from all over the world. Inevitably, they bring their foodways with them. The Mongols who established their court there in the Yuan dynasty brought barbaric delicacies such as wolves and swans, and today MacDonald’s hamburgers are familiar.

Beijing occupies a dry, dusty region, oppressively hot in summer, bitterly cold and windy in winter. Nearby hills give relief from the summer heat, but there is no escape from winter’s chill. Today, and even to some extent in the historic past, smoke and soot densely cover