Domesticated Animals

The image from an Egyptian tomb painting shows a variety of animals being led on ropes. Some of them, such as dogs, goats, and cattle, have been successfully domesticated, or bred to be dependent on human beings. Others, like the lion, gazelle, and monkey, have not been successful candidates. We don’t know exactly how domestication happened, but in time, both the genetic make-up and behavior of the animals changed. Humans have only domesticated a few species. The animals and the areas and times when they were domesticated are shown on the map below: sheep, goats, pigs, and cattle. Others not shown but very important are dogs (probably the first), and horses (much later, around 3000 BCE). The region of the Fertile Crescent shown on the map includes the Mesopotamian river valley and the east coast of the Mediterranean. It does not include Egypt, where animals were also domesticated.

Around 11,000 years ago, according to evidence from animal bones found in human settlements, people began to raise young animals and to keep adults and young in pens. The development was associated with the beginning of agriculture. Perhaps when people settled down to farm, they over-hunted the area near their homes, and began to keep animals they captured. Over time, they bred the most tame animals of each type with each other and they became more tame and used to humans. The kinds of animals people kept were (1) grass-eaters, (2) small enough to manage and not aggressive, (3) had young that matured quickly, and (4) herd animals that follow each other in groups behind a leader, among other qualities.

The result of this human effort was a huge change for human (and animal) ways of life. People had a steady supply of meat, milk and other products. They were less dependent upon hunting. There were disadvantages, too. Animal diseases jumped to humans who lived with them, such as measles, smallpox, and influenza. Over time, many people died but survivors gained immunity (resistance to disease). Ways of life also changed. People
learned to harness animals such as oxen, horses, and donkeys to ride and pull plows and carts. People became specialized animal herders, following seasonal vegetation or moving the animals when they depleted an area of grass. In lands to dry or too high in the mountains for farming, people moved herds of sheep and goats from valleys in winter to highlands in summer. This way of life is called transhumance. Others became pastoral nomads dependent entirely on their animals for meat and milk, trading with settled farmers for grain, sometimes warring with them, and other times supplying animals for transport, such as camels.

Domesticated animals such as goats, sheep, and cattle gave milk. Fresh milk sours quickly, and people learned to extend storage of dairy products by letting them turn sour in a controlled manner. Through the action of bacteria, yoghurt and cheese became delicious, healthy foods. Yoghurt and cheese contain additional benefits from the bacteria, provide a rich source of protein and calcium and are good for digestion.

The meat of grass-fed animals is very nutritious. Animals are efficient biological systems that convert plant material into protein in muscle. Red meat contains large amounts of protein for cell development, and provides minerals such as iron, creatine, zinc, and phosphorus, B-vitamins, and vitamin D. Red meat is the richest source of lipoic acid, a powerful antioxidant. It also contains a high percentage of fat, depending on what part of the animal is eaten. The fats in meat and dairy can cause people to gain body fat. Fat can also accumulate in the arteries of the heart and cause heart attacks. Vegetable protein and minerals, dietary fiber, and healthy fats from vegetable and fish oils make up a balanced diet less dangerous to health than fat from animals.

The Mediterranean diet—and most human diets until recent times—is richer in plant foods than meat. Red meat is used sparingly. Only with the rise of commercial agriculture and imported meat, refrigeration and high standards of living have people in developed countries begun eating much more meat than plant foods—and exercising their bodies too little. The Mediterranean diet has become an important model for returning to healthier ways of living. With increases in heart disease, high blood pressure, obesity, diabetes and cancer, diet is a public health issue of great concern.