**Agriculture, Iron, and the Bantu Peoples**

**农业、铁器和班图人**

There is evidence of agriculture in Africa prior to 3000 B.C. It may have developed independently, but many scholars believe that the spread of agriculture and iron throughout Africa linked it to the major centers of the Near East and Mediterranean world. The drying up of what is now the Sahara desert had pushed many peoples to the south into sub-Sahara Africa. These peoples settled at first in scattered hunting-and-gathering bands, although in some places near lakes and rivers, people who fished, with a more secure food supply, lived in larger population concentrations. Agriculture seems to have reached these people from the Near East, since the first domesticated crops were millets and sorghums whose origins are not African but west Asian. Once the idea of planting diffused, Africans began to develop their own crops, such as certain varieties of rice, and they demonstrated a continued receptiveness to new imports. The proposed areas of the domestication of African crops lie in a band that extends from Ethiopia across southern Sudan to West Africa. Subsequently, other crops, such as bananas, were introduced from Southeast Asia.

在非洲，早在公元前3,000年以前就有了农业的迹象。它可能是独立发展的，但很多学者认为农业和铁器在非洲的传播将非洲与近东的中心和地中海世界联系了起来。由于现在的撒哈拉沙漠地区的不断变得干旱使得很多人向南迁徙到撒哈拉沙漠以南的非洲地区。这些部落起初分散地居住，并仍靠打猎和采集维生，尽管是在靠近湖泊和河流的地区人们以捕鱼为业，有较稳定的食物供给，聚集了较多的人口。农业技术可能来自于近东最终为非洲人所知，因为最初驯化的农作物是起源于西亚而不是非洲的小米和高粱。一旦种植的思想传播开来，非洲人就开始培育他们自己的农作物，比如某些水稻，并且他们一直愿意接受新的外来作物。人们认为驯化非洲作物的地区从埃塞俄比亚一直延伸到苏丹的南部，再到西非。接下来，其他的作物，比如香蕉，就从东南亚传入到非洲了。

Livestock also came from outside Africa. Cattle were introduced from Asia, as probably were domestic sheep and goats. Horses were apparently introduced by the Hyksos invaders of Egypt (1780-1560 B.C.) and then spread across the Sudan to West Africa. Rock paintings in the Sahara indicate that horses and chariots were used to traverse the desert and that by 300-200 B.C., there were trade routes across the Sahara. Horses were adopted by peoples of the West African savannah, and later their powerful cavalry forces allowed them to carve out large empires. Finally, the camel was introduced around the first century A.D. This was an important innovation, because the camel’s abilities to thrive in harsh desert conditions and to carry large loads cheaply made it an effective and efficient means of transportation. The camel transformed the desert from a barrier into a still difficult, but more accessible, route of trade and communication.

家禽也来自于非洲以外的地区。牛是从亚洲引入的，家养绵羊和山羊也可能是这样的。马匹显然是由埃及的Hyksos入侵者（1780-1560 B.C.）引入的，之后就从苏丹传到西非。撒哈拉石画表明马匹和马车曾被用于穿越沙漠，并且，在公元前300到200年间，有商队横穿撒哈拉沙漠的路线。西非大草原上的人们使用马匹，后来他们强大的骑兵力量使他们缔造了庞大的帝国。最后，骆驼大约在公元1世纪被引入到非洲。这是一次重要革新，因为骆驼有能力生存在恶劣的沙漠环境，另外，骆驼可以便宜地运输大量的物质，这使得它们成为了一种方便高效的运输方式。骆驼使得沙漠从障碍转换为一条虽依然艰难但已经更加容易接近的商路和交流通道。

Iron came from West Asia, although its routes of diffusion were somewhat different than those of agriculture. Most of Africa presents a curious case in which societies moved directly from a technology of stone to iron without passing through the intermediate stage of copper or bronze metallurgy, although some early copper-working sites have been found in West Africa. Knowledge of iron making penetrated into the forest and savannahs of West Africa at roughly the same time that iron making was reaching Europe. Evidence of iron making has been found in Nigeria, Ghana, and Mali.

铁器来自于西亚，虽然它的传播路径跟农业技术不同。大部分非洲表现出一种奇怪的现象，那就是他们的社会直接从石器时代进步到铁器时代，而没有经过中间过渡的铜器或青铜器冶金术，尽管在西亚发现了一些早期使用铜器的地区。冶铁技术在差不多到达欧洲的同时，就穿过了森林和大草原到达非洲。在尼日尼亚、加纳和马里发现了制作铁器的证据。

This technological shift cause profound changes in the complexity of African societies. Iron represented power. In West Africa the blacksmith who made tools and functions. Iron hoes, which made the land more productive, and iron weapons, which made the warrior more powerful, had symbolic meaning in a number of West Africa societies. Those who knew the secrets of making iron gained ritual and sometimes political power.

科技的革新对非洲社会的复杂性产生了深刻的改变。铁器代表着力量。在西非的很多社会里，生产工具的铁匠、使土地更多产的铁锄、使战士更强大的铁制武器都有着象征意义。这些对西非社会有着标志性的意义。那些掌握了制铁技术的人们常可获得宗教权力，有时候获得政治权力。

Unlike in the Americas, where metallurgy was a very late and limited development, Africans had iron from a relatively early date, developing ingenious furnaces to produce the high heat needed for production and to control the amount of air that reached the carbon and iron ore necessary for making iron. Much of Africa moved right into the Iron Age, taking the basic technology and adapting it to local; conditions and resources.

美洲的冶铁技术发展得非常晚，并且发展有限，而非洲则完全不同，他们的冶铁技术从相对较早的时期就开始发展；他们制造了精巧的高炉以产生冶铁所需要的高温，并能控制与碳和铁矿石接触的空气用量以满足冶铁的需要。大部分非洲人直接进入了铁器时代，他们吸取了冶铁的基本技术并使之与当地的条件和资源相适应。

The diffusion of agriculture and later of iron was accompanied by a great movement of people who may have carried these innovations. These people probably originated in eastern Nigeria. ■Their migration may have been set in motion by an increase in population caused by a movement of peoples fleeing the desiccation, or drying up, of the Sahara. ■They spoke a language, prior-Bantu (“Bantu” means “the people”), which is the parent tongue of a language of a large number of Bantu languages still spoken throughout sub-Sahara Africa. Why and how these people spread out into central and southern Africa remains a mystery, but archaeologists believe that their iron weapons allowed them to conquer their hunting-gathering opponents, who still used stone implements. ■Still, the process is uncertain, and peaceful migration—or simply rapid demographic growth—may have also caused the Bantu explosion. ■

农业以及后来的冶铁技术是伴随着那些已经掌握了新技术的人们的大迁徙而传播的。这些人可能来源于尼日尼亚东部。为了逃避撒哈拉沙漠的持续干旱，人们迁徙到尼日尼亚东部，使这里的人口增多，于是这里的人们也接着迁徙。他们所说是前班图语，也就是现在仍然被撒哈拉沙漠南部的非洲人所广泛使用的班图语的源头。这些人为什么扩散到非洲中部和南部？他们怎么迁徙的？这些问题仍然是个谜。不过考古学家们相信他们的铁制武器足以让他们战胜那些靠采集打猎为生的、仍然利用石器工具的敌人。不过过程仍然无人知道，另外，和平的移民或者简单的人口增长都可能导致班图的扩张。