Bow and Arrow

People probably invented bows and arrows about 40,000 years ago. By this time, people had spread from Africa to India, Australia, all over Asia, and Europe. People in Australia didn't learn about the bow and arrow, but people did quickly use bows and arrows all over Asia, Africa, and Europe, so nobody knows who first invented it. Some of the earliest arrowheads come from .

A bow and arrow is a kind of <u>lever</u>, where your hand on the bow acts as the fulcrum for the lever. The arrows are wooden sticks fletched with <u>feathers</u> stuck to the ends to balance the arrows and help them to fly in a straight line.

To make a strong bow out of wood, it has to be pretty long. When people began to <u>ride horses</u> in <u>Central Asia</u>, about 2500 <u>BC</u>, these long bows got in their way. So about this time, somebody in Central Asia invented the stronger, more flexible composite bow. The composite bow is made of layers of wood, animal horns, and sinew, glued together in layers (usually a layer of sinew, then wood in the middle, then horn on the other side), and you can bend it a lot farther without breaking it, so you can shoot arrows with a shorter bow that will fit better on your horse. Gradually the invention spread: by 1300 BC, <u>Egyptian soldiers</u> were also riding horses and using composite bows, and by about 300 BC <u>Chinese soldiers</u> were using composite bows.



Persian archers with recurve bows (Susa, 500 BC)

Later on, maybe around 1000 BC, these same horse riding archers in <u>Central Asia</u> invented the recurve bow. These bows were in the shape of a wide W, which can shoot further for the same

length of bow. The use of recurve bows quickly spread from Central Asia to <u>China</u>. The <u>Persians</u> may have brought the recurve bow to West Asia, and from there to the <u>Egyptians</u>, <u>Phoenicians</u> and <u>Greeks</u>, who spread it to the <u>Romans</u> and <u>Carthaginians</u> in Africa.

Soon after the recurve bow came to China, about 450 BC, Chinese blacksmiths invented the crossbow. Crossbows, which had an <u>iron</u> catch added, allowed you to draw the bow, getting it all ready to shoot, and then stop it there, so you could shoot just by releasing the catch. This allowed you to shoot much farther than with a regular bow. <u>Roman</u> hunters had learned about crossbows by around 50 AD, and soldiers in the <u>Abbasid empire</u> were using crossbows before 900 AD.

In the <u>Middle Ages</u>, many archers in Europe used crossbows. Even in the Middle Ages, though, archers in <u>England</u>, <u>France</u>, and <u>Germany</u> often used all-wood longbows instead of recurve composite bows or crossbows, because they lasted better in wet weather, and these archers weren't riding <u>horses</u> anyway.

Even though bows and arrows already existed by the time people first crossed over to <u>North</u> <u>America</u>, those people don't seem to have known about them: the earliest people living in North America didn't use bows and arrows. But around 500 <u>AD</u>, people in North America <u>invented the</u> <u>bow and arrow</u> for themselves. Especially on the West Coast, many people also used recurve bows. Because people in North America didn't ride <u>horses</u>, they didn't need composite bows, but some bow-makers did still use sinew on their bows, and as soon as they got horses from the <u>Spanish invaders</u> in the 1500's, they began to invent shorter composite bows.