

Chapter 1: The Earliest Human Societies: 1-5 Metal and Its Uses
Book Title: World Civilizations
Printed By: Colin Morris-Moncada (006279659@coyote.csusb.edu)
© 2018 Cengage Learning, Cengage Learning

1-5 Metal and Its Uses

The first metal used by humans seems to have been soft copper. When combined with lead and tin ores, copper becomes the more useful bronze. Bronze has some advantages over copper: it is harder (and therefore more suitable for weaponry) and more resistant to weathering. But it has several disadvantages when compared with other metals: it is relatively difficult to make, its weight is excessive for many uses, and it cannot keep a fine edge for tools and cutting weapons. Above all, bronze was difficult to obtain in the ancient world. The period when bronze art objects and bronze weapons predominated in a given part of the world is called its *Bronze Age*. In western Asia, where the earliest known civilizations appeared, the Bronze Age extended from about 7000 B.C.E. to about 1500 B.C.E., when a major innovation in human technology—the smelting of iron—made its first appearance.

The discovery of how to smelt and temper iron tools and weapons was a major turning point in the development of every people, ushering in an *Iron Age*. Iron is the key metal of history. Wherever it came into common use, certain advances occurred. Iron plowshares opened areas to cultivation that previously could not be tilled. Iron weapons and body armor gave warfare a new look. Iron tools enabled new technical progress and expanded production. Iron utensils were cheaper than those of other metals, lasted longer, resisted fiery heat, and did not easily shatter or lose their edge.

Iron ore is one of the more common metallic ores, and it is often found on or near the earth's surface (unlike copper and lead). It is easily segregated from the surrounding soils or rock. The crucial breakthrough was learning how to temper the ore—that is, how to purify it so that the iron could be formed and used without shattering. The Indo-European people known as Hittites, who lived in modern-day Turkey, apparently were the first to smelt and temper iron. By 1200 B.C.E., this knowledge was spreading rapidly among Middle Eastern and Egyptian peoples.

Chapter 1: The Earliest Human Societies: 1-5 Metal and Its Uses
Book Title: World Civilizations
Printed By: Colin Morris-Moncada (006279659@coyote.csusb.edu)
© 2018 Cengage Learning, Cengage Learning

© 2020 Cengage Learning Inc. All rights reserved. No part of this work may be reproduced or used in any form or by any means - graphic, electronic, or mechanical, or in any other manner - without the written permission of the copyright holder.