

## CONSERVATION BRIEFS

### I—Minerals

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The United States is unusually favored in its natural resources. In such high tonnage minerals as coal, oil, and iron, it possesses adequate reserves. Likewise, it is abundantly supplied with most of the lesser essential materials. In fact, beyond any other country it enjoys self-sufficiency. Nevertheless, we are not wholly self-sustaining, nor are our natural resources unlimited. Unless non-essential and wasteful consumption of these irreplaceable assets is restricted by programs of conservation, they will soon be exhausted and we will be forced to depend more on foreign countries for raw materials to maintain our economic structure and industrial production.

#### THAT WHICH IS USELESS TODAY MAY BE ESSENTIAL TOMORROW

As matters stand today, there are a dozen or more vital raw materials classed as "strategic," of which we are woefully deficient and for which we are dependent in whole or in part on sources outside the continental limits of the United States. A special exhibit of these, with a large map showing the various parts of the world from which they are obtained, is now on public view in Stanley Field Hall. This dependence on foreign sources for strategic materials is disquieting, and may shock many who have unconsciously become over-confident in the strength of America's vast natural resources. It is thus all the more imperative that we conserve what we have if we are to exist as a great industrial power and preserve our present status among the nations.

Not only must we conserve the resources that are economically profitable—we must also guard our future by conserving those that now seem valueless. The time inevitably and invariably comes when, through improved conditions or better methods of processing, what was useless to our generation becomes a godsend to another. One may not see how minute quantities of copper and a little gold and silver can be recovered from low-grade ore to any advantage, and yet the future may reveal ways and means which will convert such present impracticabilities into profitable enterprises.

#### MUST CONSIDER BEAUTY AS WELL AS UTILITY

Judicial exploitation of economic resources alone, however, does not satisfy our program of conservation. In time of war, the importance of raw materials, because of their indispensability in industries, bulks larger than ever, and we are apt to lose sight of certain other natural assets which directly or indirectly enrich our national life. Hills, valleys, lakes, canyons, caverns, streams and

other earth sculptures may not appear so essential as tin, chromium, or manganese, but they do constitute the scenic grandeur of the land. They furnish background for man's esthetic appreciation of nature, as well as providing homes for all vegetation and wild animal life. Streams, if allowed to be filled with sewage and industrial wastes, will rapidly lose their pristine beauty and destroy the aquatic life inhabiting them. Wooded hills, if allowed to feel the vandal's ax, will lose their native beauty and soon erode away, giving to desolation and ruin vast sections of the country.

All in all, be it raw materials essential to industry or landscape features essential to our esthetic appreciation, we cannot afford to exploit either beyond our legitimate needs. We can best pay our tribute to Nature for the blessings we are enjoying by using its resources judiciously and economically.

(Next issue:—Conservation of  
Mammalian Life.)

### SLAVERY AS PRACTISED IN ANCIENT CHINA

In ancient times the very practical Chinese, confronted with the problem of what to do with people convicted for making counterfeit money, put them to work in the mint making legitimate money!

This is one of countless historical oddities, anecdotes and legends included in *Slavery in China During the Former Han Dynasty* (206 B.C.—A.D. 25), a book of more than 480 pages, by Dr. C. Martin Wilbur, Curator of Chinese Archaeology and Ethnology at Field Museum.

Slaves were owned not only by wealthy individuals privately, but the government itself held many to perform various services, Dr. Wilbur reveals. The bureaucracy of the government, insofar as minor functionaries was concerned, was composed largely of slaves, rather than of the type of "pay-rollers" with which modern governments are sometimes charged by opposition parties.

One of the most violent stories related in the book is that of King Liu Ch'u in 71 B.C. It "was considered that he had been indecent and cruel" in that he "had rejected his teacher's advice," killed the teacher and his son, roasted and boiled one of his wives and sliced another alive, and killed sixteen other innocent people. As a punishment for all this it was decided the king ought to suffer execution, but the Emperor "could not bear to do this." So the king was banished with "an estate of a hundred households." The king, however, committed suicide.

Summarizing the general contents of the book, Dr. Wilbur writes:

"Industry and commerce developed rapidly in China during the last three centuries before Christ. Contemporary Hellenistic and Roman business men made extensive use of slave labor. Nothing comparable

occurred in China. Private and government slavery had a marked growth under the Han empire, but industrialization did not become an important characteristic.

"There are more historical data on slavery during the four and a quarter centuries of the Han period than during the millennium preceding or the four centuries following. Slavery was an integral part of the social system. Various evidences, such as laws regarding enslavement as a punishment for certain crimes, special taxes on slave owners, legislation that limited the master's disciplinary powers, and the inferior status of slaves before the law, show that it was legally established. There was an abolitionist sentiment in the Confucian school of officials and 'social scientists.'

"Han slavery was not caste bound as it tended to become in later Chinese periods. There was a fluidity of transfer from free to slave status, and from unfree to full plebeian rank in one step. It was even possible for an ex-slave to marry his former owner. The servile population, apparently small and well infused, seems to have composed only one to five per cent of a population which reached about 60,000,000. There were no known slave revolts, even though private male slaves were commonly armed and were often used by their master for local terrorism.

"There was government and private ownership of slaves, and there were native and foreign slaves. There were hereditary, criminal, and debtor slavery, self-sale and selling of women and children under economic pressure, kidnapping, slave raiding, and enslaving of prisoners of war. The trade included government as well as private selling, public slave markets, probably dealers in specially trained slaves, and organized importing and exporting. We know much less about the economically productive uses of servile labor than about slaves employed as grooms and domestic servants, mounted and armed bodyguards, tomb watchers, musicians, dancers, and other entertainers, or used as personal attendants, confidential advisors and business managers. Public slaves did the servant work in palaces and government bureaus, held petty bureaucratic positions as clerks, accountants, timekeepers, ushers, etc., and engaged in some skilled handicrafts, in game keeping and ranching, as well as in the imperial grain transport and a few other lines of heavy gang labor."

Highly polished armlets of green soapstone are displayed with other personal ornaments of the Tuareg of the Sahara, in Hall E, Case 12. The armlet is made by rubbing away all the central portion of a stone disk by use of sand and water. The armlet is then steeped in oil; it is worn only by a youth who has attained the status of manhood.





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