

THE FLINT WORKER

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Film #10-100

SUBJECT AREA: Human origins, cultures of people, primitive technology, beginning archaeology, introductory anthropology.
GRADE LEVEL: High School, College, University, Adult
LENGTH: 16mm color/sound - 25 minutes

Produced by: NORM HOLVE and IDAHO STATE UNIVERSITY
Directed by: DR. EARL H. SWANSON, JR.,
with the assistance of the
NATIONAL SCIENCE FOUNDATION
PURCHASE PRICE: \$295.00 - RENTAL PRICE \$25.00

SYNOPSIS

Nearly two million years ago, man began to work stone into useful tools. The techniques, called **LITHIC TECHNOLOGY**, use a principle which permitted early man to predetermine where and how stone would fracture. This is called the cone principle.

Don Crabtree, Research Associate, Idaho State University Museum, makes stone into tools using simple percussion techniques. In slow motion we see how a cone is formed inside a rock and what happens when a hammerstone strikes a blow against a large obsidian cobble. We then see whole cones removed by B-B's striking a pane of glass. Crabtree makes a grooved maul by producing intersecting cones, illustrates cone shearing, and uses a punch to detach flakes with a half-cone. Crabtree brings the basic technology together as he makes a cleaver and a hand ax. Detailed artwork interprets basic lithic technology concepts.

VOCABULARY

- | | |
|---------------------------|----------------------|
| 1. Proximal end | 7. Compression rings |
| 2. Platform | 8. Blade scars |
| 3. Point of applied force | 9. Ercillure scars |
| 4. Bulb of force | 10. Distal end |
| 5. Negative bulb of force | 11. Cortex |
| 6. Longitudinal fissures | 12. Fracturing |

INTRODUCING THE FILM

Student Preparation - Survey the students to interpret knowledge and comprehension of lithic technology by:

1. Examination of replica pieces as an adjunct to this film series.
2. Discuss early man's need for tools and weapons.
3. Discuss the distribution of peoples during the paleolithic period as it relates to the availability of workable lithic materials.
4. Interpret the ability of Early Man as he conceived tools and then developed the skill to manufacture them from blunt, round rocks.

CONCEPTS

1. For about two million years, man developed stone tools as a means of living with the environment in many areas of the world.
2. The technology of stone toolmaking rests on knowledge of the cone principle.
3. Perhaps the most common tool made by Early Man in many parts of the world was the hand ax, a multi-purpose tool with many variations on a common design.

QUESTIONS

1. How did Early Man discover the cone principle?
2. What does knowledge of the cone principle provide to a toolmaker?

HOW TO GET THIS FILM: To borrow prints, inquire at your local School District Audio Visual Center, County School Superintendent's office or your Public Library. To rent films, write to your nearest University Film Rental Library. Ask your Audio Visual Coordinator to buy prints so you may use them frequently at no charge.

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