

lenges.

OTA recommendations are: fighting U.S. "functional illiteracy" in basic reading, science and math skills; immediately implementing job training, retraining and counseling programs for workers displaced by PA; cross-training or teaching workers a variety of job skills; developing better education and career guidance programs for both youth and adults; and fostering overall improved worker training in new technology through an orchestrated effort by government, industry and educators.

This OTA report will serve as background information for Congress members who must vote on legislation related to computer advances. For example, a House Committee on Science and Technology subcommittee this month will consider a bill that would create several centers for industrial technology (to study robotics and PA) and also create a federal robotics center under the National Bureau of Standards. One committee aide says, "As we move ahead on legislation, [the OTA study] flags areas where we need to study more."

This week a National Academy of Science committee released a report saying that future high school graduates need strong math, science and reading skills in order to compete in a job market changed by technology. And members of the Committee on Science, Engineering and Public Policy also note that these graduates will face life-long returns for more schooling to keep pace with high-tech advances and thus remain employed, says Markley Roberts, one panel member and an economist with the AFL-CIO.

"It's going to be a tough, competitive job market for a long time," says Roberts. "We are very concerned with job losses over the long run."

Blumenthal says no one can accurately predict exact job losses or shifts in the work markets because neither the future economy, retraining efforts, nor the need for entry level positions can be predicted.

—A. Rowand

## Copyright for chips?

The U.S. Senate has passed a bill providing 10-year copyright protection for the masks — original, stencil-like forms — through which each precisely designed and integrated layer of circuitry is written onto a semiconductor integrated-circuit chip. A similar bill is expected to pass in the House of Representatives soon.

Both bills provide protection against copying the original masks as well as the unauthorized production of chips made from registered masks. However, "reverse engineering" — the dissection and layer-by-layer reconstruction of a chip to see how it achieves its electronic functions — is allowed. □

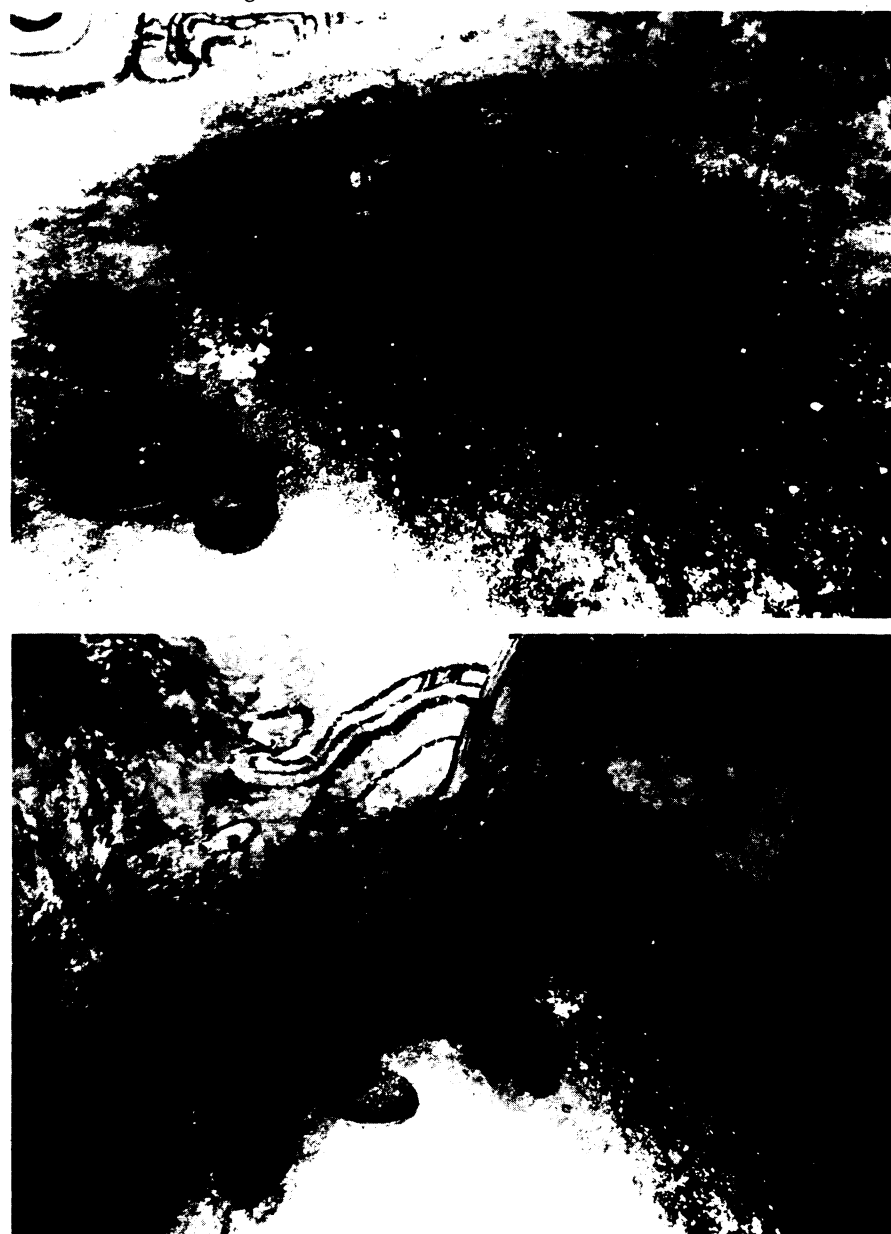
## Ancient Maya tomb discovered

An untouched, perfectly preserved 1,500-year-old Maya tomb—adorned with elaborate wall paintings and an intact male skeleton — has been uncovered in the dense jungles of northeastern Guatemala. The find, announced this week by the National Geographic Society, gives researchers a dramatic, unusual view of the Early Classic period of the advanced Maya Indian civilization that flourished before disintegrating rather mysteriously 500 years ago. The tomb, dated between A.D. 450 and 500, also contained 15 ceramic vessels and several carved jade beads.

The May 15 discovery by a joint United States-Guatemalan expedition — financed by an emergency grant from the Society — occurred near the Rio Azul (Blue River) in Guatemala's Peten Region. The tomb is

part of a temple complex among hundreds of buildings in a 500-acre Maya settlement. Last year, the scientists discovered the capstone of the tomb beneath a pyramid that also housed another tomb, called No. 1, which was believed to be the burial place of a ruler of the civilization. But unlike that tomb, this latest chamber has not fallen prey to looters. The resulting treasure chest of artifacts — the first such untouched find in 20 years — has both surprised and elated the researchers.

"It's a major tomb," says R.E.W. Adams, expedition director and professor of anthropology at the University of Texas at San Antonio. "Because it's associated with ... 28 looted tombs, [it] gives the other tombs historical significance. It gives us more data on an Early Classic ruling family which seems to have been associated with



Photos: National Geographic Society

The newly discovered Maya tomb contained the skeleton of an "administrator." Paintings adorn the limestone walls and pottery is scattered on the floor.