

SCIENCE NEWS

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COVER: In the future, when computers and telephone lines become the major links between businesses and governments, contracts and treaties may be signed at a distance. Computer scientists are developing mathematical methods for keeping the parties to such agreements from cheating each other. See story p. 205. (Illustration: Andrew Myer)

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SCIENCE ON THE AIR

SCIENCE NEWS prints the latest written word of scientific developments and noteworthy news. We've set this space aside to inform our readers of programs of scientific interest that are scheduled on television and radio. Check your local listings for exact times.

• **Oct. 5 (PBS) "Return to Space"** A survey of the return to manned spaceflight by the United States after a six-year pause. The program looks back to the debut voyage of the space shuttle last spring and ahead to its second trip. The program is hosted by astronaut Rusty Schweickart, and among those who appear are former NASA Administrator Thomas Paine, who rates space-age presidents, and physicists Gerard K. O'Neill and Freeman Dyson, who discuss mankind's long-range future in space. Also included is discussion and debate of the Pentagon's role as silent partner in the space shuttle and a discussion of space medicine.

• **Oct. 5 (PBS) "Pesticides and Pills: For Export Only"** Part one of this two-part program focuses on the indiscriminate marketing of dangerous pesticides in the Third World. Part two, to be shown Oct. 7, examines the export of restricted medication and drugs to nations of the Third World.

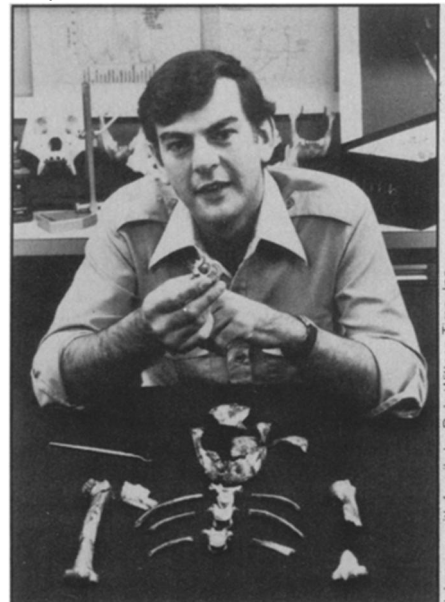
• **(PBS) "NOVA": Oct. 4 "Why America Burns"** An examination of the causes of the epidemic of fire in the United States (which has the highest fire death rate of any industrialized country) and suggestions for cutting the rate by 50 percent



Sue Bennett for WGBH

within one year; **Oct. 11 "The Great Violin Mystery"** A look at attempts to unlock the secret of the sound of the great violins; **Oct. 18 "Cosmic Fire"** A report on the extraordinary findings of X-ray astronomy, which in two decades has revealed that our universe is more strange than ever imagined; **Oct. 25 "Locust: War Without End"** Shot in Europe and Africa, this program looks at the latest attempts being made to eradicate the locust.

• **(PBS) "Odyssey": Oct. 6 "On the Cowboy Trail"** A look at the effects of modern farming techniques and strip mining on the time-honored traditions of ranching; **Oct. 13 "Lucy and the First Family"** Focus is on the controversy about human evolution spawned by the discovery of Lucy, the oldest and most complete skele-



Johanson with fossils by Dale Wittner, Time, Inc.

ton of any human ancestor; **Oct. 20 "The Kirghiz of Afghanistan"** Forced to abandon their homeland and nomadic way of life by the Communist takeover, the Kirghiz had adapted to one of the harshest climates on earth; **Oct. 27 "Bath Waters"** An investigation of a lethal amoeba found in the hot springs baths of Bath, England, built 2,000 years ago by the Romans, provides the focus for an emergency excavation and reconstruction.

• **(PBS) "Cosmos": Oct. 6 "One Voice in the Cosmic Fugue"** Life and its origins are highlighted, with a discussion of evolution, natural selection and organic chemistry and a computer simulation of DNA replication; **Oct. 13 "The Harmony of the Worlds"** A discussion of the expansion of knowledge about planetary motion; **Oct. 20 "Heaven and Hell"** An examination of the evolution of the solar system; **Oct. 27 "Blues for a Red Planet"** A review of scientific thought about Mars.

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