

20 YEARS 1872-1992

CD-ROM VIDEO GAMES: THE NEXT GENERATION

A Times Mirror Magazine

Popular Science



CHRYSLER LH vs. BONNEVILLE & SABLE



BEST WHATS NEW

THE YEAR'S 100 GREATEST ACHIEVEMENTS IN SCIENCE AND TECHNOLOGY

DECEMBER 1992 \$2.50 CANADA \$2.95





Intelligent excavator

Kraft Telerobotics believes its new Haz-Trak excavator will bring the historically low-tech construction industry into the space age. Using sophisticated force-feedback electronics, the operator can move the shovel intuitively and "feel" what it touches, even though the operator may be miles from the site. As its name implies, Haz-Trak may come in handy for cleaning up chemical and nuclear waste sites.



JOE LAPINSKI

Japanese-American twins

Twins beneath the skin, the Mercury Villager and Nissan Quest are the most carlike minivans to date. Passengers sit closer to the ground than in other minivans, and the suspension provides a softer, sedanlike ride. The result of a four-year joint project by the two carmakers, the vans are powered by a three-liter V6 derived from the engine used in the Nissan Maxima. The Quest and Villager are priced from about \$17,000 to \$23,000.



STEVE STANKIEWICZ

Heat relief

Physicist Thomas Mee found a use for fog other than providing London with ambience: outdoor cooling. The Mee Fog device sprays a superfine mist of water through patented stainless-steel nozzles to drop air temperatures by as much as 40°F—enough to make scorching Southwestern backyards bearable in summer. The system is used in public areas such as New York's Bronx Zoo and Expo '92 in Seville, Spain.



TV that's ghost-free

Engineers at Philips are exorcising ghosts from TV sets with the first ghost canceling reference (GCR) signal. The GCR signal is inserted at broadcast stations; hardware that converts it to digital formats—now at cable companies and soon available in TV sets—then adjusts and "cleans" the signal by comparing the broadcasted GCR signal with a copy of the original version stored in the hardware memory. The result: clear, sharp, ghost-free pictures.



It's in the cards

The NCR 3170 is one of the early notebook computers to feature the credit-card-size PCMCIA slot as a standardized "disk drive." The slot handles memory cards, high-speed modem cards, network adapters, and more. A built-in fax/modem card and an optional wireless e-mail system complement this 4.9-pound notebook's 386 SL processor and 80-megabyte hard drive. This combination of features can't be found in a lighter notebook.

