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WONDERS OF THE UNKNOWN WOODS: Saving the Boreal Forest
Zebra Mussels • Bill Reid • Deep-Sea Vents • Boundary Bay

Intriguingly, a biochemical mechanism may also underlie the pattern. According to American psychiatrist Michael Liebowitz, the initial attraction phase of love may well be accompanied by increased levels of natural amphetamines in the brain. After two or three years, however, humans likely develop a tolerance for the stimulants. While a different set of chemicals, natural opiates, then suffuse the brain, many people still crave the old euphoria and leave their original partners for someone new.

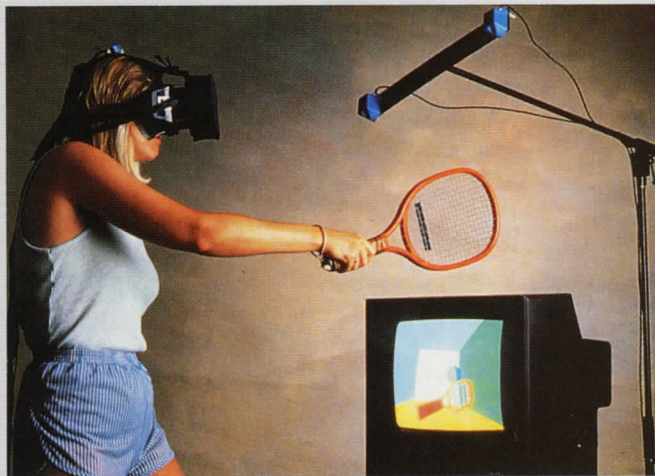
In modern society, property settlements and custody battles have greatly complicated the ancient pattern, but Fisher is convinced that divorce once served the human race well. "One of the most obvious advantages is that if a male and a female raised a child through infancy and then broke up and formed new pair bonds, what they would actually be doing is creating genetic variety," concludes Fisher. "And that's really critical to evolution."

Heather Pringle ◀

WELCOME TO CYBERSPACE

In the near future, architects could wander through skyscrapers they have just designed, combing for flaws before construction begins; doctors may be able to rove through human organs to command the attack of x-ray beams on cancerous tumours. Even the general public may be offered a chance to "participate" in steamy X-rated movies or perhaps to explore the soaring nitrogen-ice ridges of Triton.

It is called virtual reality, or cyberspace, and according to some experts, we are rapidly approaching an era in computer-graphics technology that will allow us to experience, rather than just look at, such things as movies, sports scenes,



Forget about booking a court. With virtual reality, computer buffs may soon experience, as well as watch, sports scenes and movies.

medical crises and just about any environment which exists—and some that do not—in our universe.

To create the illusion of reality, researchers have dispensed with such conventional computer interfaces as the keyboard and the mouse. In the Autodesk system pioneered by a California company, a subject dons headgear that is equipped with two liquid crystal displays to receive three-dimensional images from a remote computer, and two sensors to inform the computer where the subject is. "So if you turn your head to the right, you suddenly see what is to the right; the view changes," notes David Cohn, a senior editor at *CADalyst*, a Canadian magazine for specialists in computer-assisted design. "This is what presents the feeling of reality. You are no longer just looking at a computer screen."

Moreover, Cohn is speaking from experience. Last year, at a private demonstration in Boston, he entered cyberspace himself—mounting a stationary bicycle, donning a headpiece shaped like a diving mask and feeling as if he were literally flying into the air. "If you pedalled over 25 miles per

hour, the bicycle would take off as if you were E.T. You felt as though you were flying. I mean, some people actually reported a feeling of vertigo."

In light of the potential, some researchers fear for the effects of the new technology, pointing to the enormous influence that video games have already had on today's youth. Compared with the quality of virtual reality, they say, video games are primitive, and the new technology's possible impact on the young cannot easily be overstated.

For now, however, virtual reality has a way to go before becoming as sophisticated as researchers envisage. To date, computers cannot produce colour images fast enough to keep up with all human movements, and their relative slowness results in jerky or choppy movements in cyberspace. Still, an American company is marketing what it calls an "eyephone," which, coupled with a sensor-equipped glove and the necessary computers, sells for a mere \$267,000 (U.S.). So far, the market consists only of research institutes and universities. But researchers predict that virtual-reality products will be available to most commercial users within

five years and that consumers may be able to enjoy the fantasy world of cyberspace within a decade.

Rick Boling ◀

TRANSFORMING TOBACCO

For years, scientists and doctors have issued warnings about the health hazards associated with smoking tobacco. In their efforts to find a safer smoking material, researchers have stumbled upon an unexpected characteristic of conventional tobacco—it is nutritious.

Over the past decade, Shuh J. Sheen, a plant geneticist at the University of Kentucky, in Lexington, has been trying to eliminate the harmful chemicals from tobacco leaves. During his research, he discovered that the enzyme responsible for photosynthesis in tobacco contains a balanced mix of amino acids, making it an ideal source of dietary protein. While cotton, soybeans and other crops possess a similar enzyme, notes Sheen, "tobacco is the only plant that we can extract the protein from in the form of crystals."

The crystallized protein resembles sugar but is odourless, colourless and tasteless. It is also completely water-



Researchers say the evil weed is a good source of dietary protein.