THE SKINNY ON 
FAT 
Has America's Fat-Free Food Obsession Gone Too Far?
The Anti-Fat Frenzy

America is in the grip of a fat fanaticism, obsessed with those furtive grams of fat lurking in our food and plotting hostile takeovers of our waistlines. But despite what the obsessives are saying, it's possible to control your fat intake without driving yourself crazy. **Lifestyle**: Page 52

Jesse's World

Helms is back, and he hasn't moderated his style a bit. He's disabling Clinton, threatening to cut off the United Nations and allying GOP colleagues. But look again. He may be less of a menace than he appears. **National Affairs**: Page 54

A courtesy Helms poses with pageant queen

All I Want for Christmas

Macbeth on CD-ROM. Elvis in a pop-up Grace Kelly package. Pauline Kael's greatest hits. The Hermitage's greatest treasures. Ladybug yo-yos and veggie-shaped baby bats. 'Tis the season for *Newsweek*'s annual gift guide. **The Arts**: Page 72

Detail of Murillo's angels from the Hermitage

Cover: Photograph by David White. Food styling by Dyke Royster and William Smith. Front photograph by Larry Downing—*Newsweek*.
The MBone: Can't You Hear It Knocking?

Internet: Interactive TV is here already — sort of

By Katie Hazen

TWO SONGS INTO THE DALLAS SHOP in the Rolling Stones' "Voodoo Lounge" concert tour earlier last month, Mick Jagger paid an unusual tribute: "I want to say a special welcome to everyone that's climbed into the Internet tonight, and has got into the MBone, and I hope it doesn't all collapse!"
The crowd went wild.
The crowd out there in cyberspace, that is. In addition to the 50,000 people at the Dallas Cotton Bowl, the concert was carried to some 2000 workstations around the world that were hooked to the Internet, where Stones fans from Osaka to Oslo gathered around computer screens to watch a bit of rock-and-roll history in the making.
The 30 minutes of the Stones concert carried over the Internet brought worldwide recognition to one of the Net's more intriguing outputs — the MBone, short for MultiPoint BackBone. The brainchild of a small group of computer scientists, the MBone is a subset of the Internet capable of "multicasting." That is, rather than "unloading" one packet to one destination, the network copies each packet of information from the source for delivery to each destination that has requested it.

Unlike traditional broadcast methods, the MBone is entirely interactive. It carries audio, video and a "white board" feature that enables participants to share text, images and sketches, "Do larger lips require more bandwidth?" grappled one fan on the white board during the Stones concert. The MBone started as a "wild idea" in March, 1992, when Allison Maukin, a researcher involved with the Internet Engineering Task Force, was too far away in her pregnancy to travel to San Diego for an IETF meeting. Maukin suggested extending an experimental multicasting technology so that an audio feed of the meeting could be transmitted to her and others who couldn't attend. Steve Coe, an associate professor at the University of Southern California Information Sciences Institute, and Steve Dockst, a computer scientist at Seven Corp's Palo Alto Research Center who developed the idea of multicasting, spent weeks setting up a multicast facility.

Since then, more than 50 events have been sent over the MBone. Statistical symposiums and workshops are now commonplace. NASA regularly broadcasts its space shuttle missions over the MBone. Bill Clinton, Al Gore and the Swedish prime minister have all appeared on it. To say nothing of Steve Viz Duggan and Dith Pran, two lesser known rock bands that boast Mick the MBone man.

It's free. Connecting to the MBone isn't easy. It requires a powerful workstation and a very high-speed communications line. For that reason, most MBone use is confined to universities and computer-research labs. But for those who do have connections, broadcasts over the MBone are free. And connecting to the MBone allows audio and video to be carried without interfering dedicated transmission lines.
The MBone is far from perfect, and its inventors still consider it experimental. For one thing, it's a notorious glut of bandwidth, or network capacity. Broadcasts sent over the MBone can slow down the entire Internet. And the video and audio quality isn't particularly good. Mick Jagger appeared on a static screen inset, and the concert more closely resembled a slide show than a full-motion video. And listening to the Stones on the MBone was like listening to Neil Armstrong speak from the moon.

The Stones concert may have brought the MBone a bit of attention, but its creators have their sights set on more serious applications. Viz Duggan, a scientist at Lawrence Berkeley Laboratory who developed much of the MBone's software, points to a recent scenario, convened at the University College London. A hundred or so doctors in London and Sweden watched as a surgeon in San Francisco performed a complex liver operation on a patient in Stockholm. Viewers asked questions about the procedure. Ph.D candidates defended their dissertations to far-flung committees over the MBone. In addition, the Montana state government is looking into running town meetings over the MBone during the winter months, when a rural population has difficulty getting to a central meeting place.

In the meantime, the MBone's most pressing need is for more bandwidth, which is already on its way for the Internet at large. When that happens, in the next five or 10 years, says Viz Duggan. During the conference and Coe, the MBone will flow so smoothly and become an entrenched aspect of the Internet. It's just a short away.