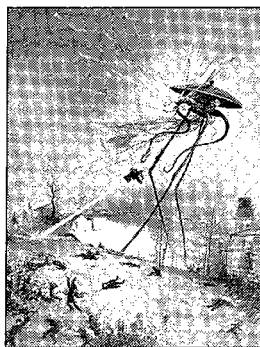


on a large scale. Her readable, humane study underscores the difficulty of coming up with answers. She can propose nothing more—or less—than a plea for a system that treats mentally ill people as individual medical patients instead of as statistics.

Science & Technology

MARS BECKONS: The Mysteries, the Challenges, the Expectations of Our Next Great Adventure in Space. *By John Noble Wilford. Knopf. 244 pp. \$24.95*

"Someone's crawling out of the hollow top—someone or... something... I can see the thing's body now... I can hardly force myself to keep looking at it, it's so awful... with saliva dripping from its rimless lips that seem to quiver and pulse." This description of Martian invaders, from Orson Welles's 1938 *War of the Worlds* broadcast, terrified the country, in part because it was then accepted as common knowledge that life existed on Mars. If Earth had a twin anywhere, it was Mars, with its similar axial tilt, its polar caps, and its 24-hour days. In 1877, the astronomer Giovanni Schiaparelli sighted a system of "canals" on Mars. They seemed to indicate intelligent life and the means to sustain it, water. Even after 1947, when spectroscopy (an analysis of the light waves reflected off the planet) determined that the atmosphere consisted primarily of carbon dioxide and very little oxygen, scientists and lay people still believed that some forms of life existed on Mars. Then in the 1965 space probe, Mariner 4 swung within 6,118 miles of the planet for a closer look.



What it found, says Wilford, a two-time Pulitzer Prize winner and a science correspondent for the *New York Times*, was an arid land whose "canals" were nothing but an optical illusion. Finally, in 1976, the Viking spacecraft touched down on

the surface of Mars and relayed back actual images of the planet. Mars was stranger than science fiction: Although half the size of Earth, it had sand dunes vaster than the Sahara, a grand canyon as long as the distance from New York to Los Angeles, and a volcano twice the size of Everest. But there was no sign that Mars could support life. Its surface lacked the protection of a dense atmosphere and was so heavily bombarded by radiation that no carbon-based forms (i.e. life as we know it) could possibly survive. Even astronomer Carl Sagan, who had long held out hope of finding life on the "red planet," acknowledged that Mars's surface was "antiseptic with a vengeance."

Yet Mars still beckons. President George Bush has called for America to land a man on Mars within the next 30 years. Wilford seconds this proposal, though he makes no compelling case for the mission. Oddly, in envisioning the exploration of Mars, Wilford ignores costs. In the past two years the National Aeronautics and Space Administration's budget has risen by 36.6 percent, even though the agency initiated no new projects. To get humans to Mars, a roundtrip of 48 million miles, could cost an almost inconceivable \$400 billion. Now, three decades after John F. Kennedy exhorted Americans to send a man to the moon, we may be reaching the outer limits of space exploration: the ability to pay for it.

HISTORY OF SYPHILIS. *By Claude Quézel. Trans. by Judith Braddock and Brian Pike. Johns Hopkins. 342 pp. \$35.95*

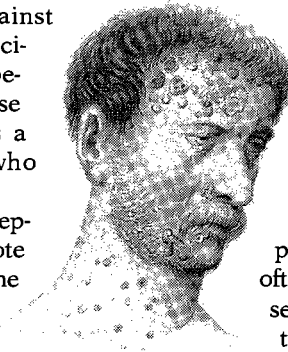
There are two histories of syphilis. According to the popular version, scientists and doctors waged a long war against the disease, gaining victory with the 20th-century discovery of penicillin. Claude Quézel, a historian at the Centre nationale de la recherche scientifique in Paris, has written a rather different story.

For 500 years, Quézel says, society has failed to gain control over a disease spread by a fragile organism that can barely survive a few hours outside the body. Although the syphilis bacterium can now be killed by a few injections, the disease is not only alive but spreading. The 70 million reported cases worldwide represent only the tip of the iceberg.

Quétel argues that the war against syphilis was never mainly between science and disease. From the very beginning, it was waged between those who sought to preserve syphilis as a scourge on sinners and those who sought its cure.

In the beginning, syphilis was a shepherd: In 1530, a Veronese poet wrote an epic about a shepherd whom the gods punished with a venereal disease. The poem supplied a name for a disease that a few years earlier, Quétel says, had been "unheard of." The sudden appearance of the disease in Italy just after the discovery of the New World led many Europeans to believe it came from America. (Its origins actually are unclear, which might be less a mystery if Quétel had investigated earlier writers, including the 12th-century's Hildegard of Bingen, who wrote about a "*lepra incontinentia*." During the years 1510–20, as syphilis spread throughout Europe, each country named it after its enemy of the day. The Italians called it the French sickness; the French, the Neapolitan disease. Later the Japanese would name it the Chinese ulcer.

Medical understanding of the disease long remained confused. Some ascribed it to "the magnetic frictions produced by an act of copulation, a kiss . . . or even the flutter of the eyelids." Moralists were less troubled by uncertainty. During the 18th century, "abolitionists" (those wanting to abolish the registration of prostitutes) "refused to teach the general public to protect itself on the grounds that to do so would be to promote debauchery." During the next century, the Vatican condemned the con-



dom, manufactured by balloon makers, as "thwarting the decrees of Providence." For the moralist, syphilis had the advantage of making sin visible.

In *Illness as Metaphor* (1979), Susan Sontag explains how diseases, especially those involving psychiatric disturbances or sexuality, often have been linked to heightened sensibility and creativity. In 19th-century literature, syphilis was a more common subject than alcohol or drugs. The French author Guy de Maupassant boasted at age 27, "I've got the pox [syphilis]! at last! the real thing! not the contemptible clap [gonorrhoea]." From Rabelais to Boswell to Isak Dinesen, writers who "romanticized" venereal disease hardly differ from those moralists who see it as a well-deserved punishment. Both subscribe to the myth that connects the illness harming the body to a necessary development in the soul. It is this myth that scientists have battled for centuries in the attempt to gain mastery over disease.

The five-century history of syphilis is important, Quétel insists, because AIDS has experienced the same tensions and obstacles in its short 10-year history. Curiously, when he comes to the subject of AIDS, Quétel seems to regret a certain amoral attitude: "We are increasingly unwilling to blame anyone for anything," he writes; "the disease is [merely] transmitted by sex, just as malaria is transmitted by mosquitoes." With this statement, he demonstrates the old difficulty of separating morality from science that made—and still makes—diseases like syphilis difficult to combat.