

tried "to sequester the city's wealth as well as literature and other possessions of a spiritual nature." And after the spring of 68, the only areas open to them were to

the east and south of the city—"that area, in other words, where Hebrew scrolls were discovered in the third, ninth, and 20th centuries."

Rome's Crusade For Democracy

"Catholicism and Democracy: The Other Twentieth-Century Revolution" by George Weigel, in *The Washington Quarterly* (Autumn 1989), 1800 K St. N.W., Washington, D.C. 20006.

It seems entirely natural today to find the Catholic Church in the forefront of the struggle for human rights everywhere from Poland to South Korea. In fact, writes Weigel, the president of the Ethics and Public Policy Center in Washington, the Church's "conversion" is relatively recent, and it is not without problems.

As late as 1864, Pope Pius IX rejected out of hand in his *Syllabus of Errors* the notion that "the Roman Pontiff can and should reconcile himself to and agree with progress, liberalism, and modern civilization." And Pius IX was considered a reformer!

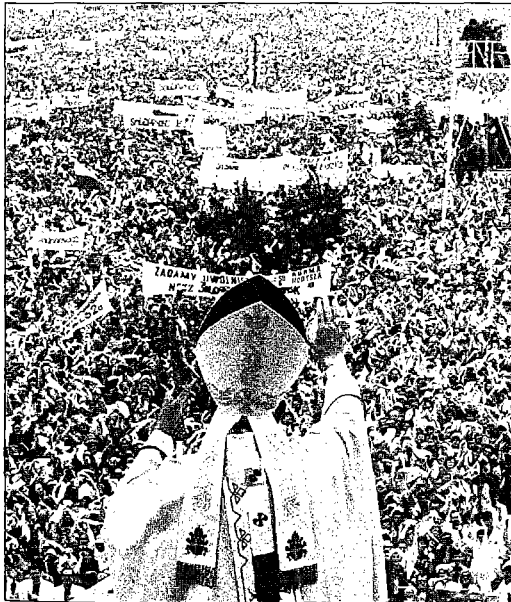
The Vatican was appalled by the French Revolution, and the idea that man rather than God was the proper focus of earthly government. Above all, says Weigel, it was

convinced that religious liberty "would inevitably lead to religious indifference and, given the right circumstances, to hostility toward religion on the part of governments." Thus it favored the restoration of close church-state ties, along the lines of Europe's traditional altar-and-throne monarchies. In 1895, for example, Pope Leo XIII acknowledged that the Church was thriving in America but added that "she would bring forth more abundant fruits if, in addition to liberty, she enjoyed the favor of the laws and the patronage of the public authority."

Ultimately, the American experience, along with the rise of communism and fascism and the decline of anti-clericalism among European liberals, persuaded the Vatican to reconsider. An important step came in 1931 with a social encyclical by Pope Pius XI recognizing the importance of what sociologists call "civil society." Pius called it "both a serious evil and a disturbance of right order to assign to a larger and higher society what can be performed successfully by smaller and lower communities."

But the threshold was not crossed until 1965, when the Second Vatican Council officially embraced freedom of conscience, abandoning once and for all state-sponsored religion. Today, Polish-born Pope John Paul II stumps for democracy around the world. It is, Weigel notes, a secondary mission. And the Pope advocates a Whiggish sort of democracy that might make some Americans squirm. As Weigel puts it, the Pope believes that "freedom is not a matter of doing what you want, but of having the right to do what you ought."

Some issues remain to be worked out. How do various theologies of liberation fit



Pope John Paul II's visit to Gdansk, Poland in 1987: Religion or politics?

in? And what comes first when the Church faces hostility in the Third World: "inculturation" of democratic norms, or

of the faith? Such questions, Weigel says, insure that the Church's intellectual struggle with democracy will continue.

SCIENCE & TECHNOLOGY

Cosmic Anarchy?

"Through the Looking Glass" by George Greenstein, in *Astronomy* (Oct. 1989), 21027 Crossroads Circle, P.O. Box 1612, Waukesha, Wisc. 53187.

Is our universe only one among many? Is it theoretically possible to create a new universe in a laboratory—from 20 pounds of chopped liver?

Not long ago, scientists would have scoffed at such questions. Now, reports Greenstein, an Amherst astronomer, astrophysicists and others have begun taking them seriously because of the work of an MIT physicist named Alan Guth.

In 1981, Guth formulated a new theory that explained certain nagging gaps in the half-century-old Big Bang theory of the origin of the universe. Suppose that during the Big Bang the expanding universe suddenly underwent a quantum "inflation" far greater than hitherto imagined, and in the space of only 10^{-34} seconds. Drawing on the highly speculative "grand unified theory of particle physics," Guth suggested that during the Big Bang, the expanding (and cooling) universe experienced a sudden vast release of energy, just as water vapor releases energy when it cools and

becomes liquid. That would cause Guth's "inflation." It would also explain the origin of matter. All of that energy would not merely dissipate after inflation, Greenstein explains, but would be transformed via Einstein's famous equation, $E=mc^2$, into matter: "Lots of matter."

That is why a new universe might, in theory, be created out of a tiny "seed" (the 20 pounds of chopped liver, or anything else) subjected to powerful forces.

It also suggests that nature may regularly create new universes, which stream outward from ours like "bits of fluff blown from a dandelion in spring." Or that our universe is a bit of fluff from an earlier one. These other universes could be ordered on completely alien principles. For example, they may be built without atoms. We might perceive these parallel universes only as "black holes" in space.

Finally, Guth's theory raises the possibility that, if "inflation" occurred unevenly during the Big Bang, even the far reaches

Onward to Mars!

In *Harper's* (Aug. 1989), the poet Frederick Turner proposes a modest cure for the malaise of affluence.

We need a project that will allow us to pursue beauty and truth on a grand scale—a vision as "impractical," "wasteful," "impossible" as the cultivation of Mars. The most stable and perhaps the most contented society in the world, I would say, has been that of ancient Egypt, which for thousands of years poured its surplus wealth straight into the ground, in the form of grave goods, tombs,

and monuments. What was more impractical, wasteful, impossible than the pyramids? . . . How are we to employ the beautiful and terrible heroic spirit of humankind, ready for suffering and sacrifice, when we no longer have war and nationalist myth to spend it on? How are we to use those billions of dollars and rubles, which employ millions of workers and serve as a fiscal and technological flywheel, to keep the economy going? Garden Mars! The enormous scale and expense of such a project can, in this light, be seen as one of its great advantages.