

was obviously not typical police behavior, Mac Donald says, “the *Times* zeroed in on a different angle. The Street Crime Unit, and the NYPD generally, it claimed, were using the stop-and-frisk technique to harass minorities. The logic seemed to be that the same racist mentality that leads to unwarranted stop-and-frisks led the four officers to shoot Diallo.”

The newspaper seemed to regard *any* mistaken police frisks of people thought to be carrying concealed handguns as too many, she says. The Street Crime Unit reported making 45,000 frisks during 1997–98 and 9,500 arrests, of which 2,500 were for illegal guns. That ratio of one gun for every 18 frisks is “well within tolerance,” Columbia University law professor Richard Uviller told Mac Donald. “I don’t know of any other way to fight the war on handguns—the number-one crime problem in the U.S. today.”

The *Times* coverage gave little sense of the danger posed by illegal guns, Mac Donald contends, or of the dramatic reduction in homicides in New York in recent years (from a peak of 2,200 in 1990 to 633 in 1998). Nor did the newspaper pay much attention to community leaders such as one who told her: “If the Street Crime Unit pats me down because I match a description, and the next guy they pat down has a gun, God bless them.” According to a recent U.S. Justice Department study, 77 percent of black New Yorkers approve of the police. But thanks in part to the “anti-police” press coverage, the other 23 percent have grown angrier, Mac Donald says, and so Street Crime Unit officers “have pulled back,” making fewer arrests. No surprise then, perhaps, that in the months after the Diallo killing, murders in the city were up 10 percent.

RELIGION & PHILOSOPHY

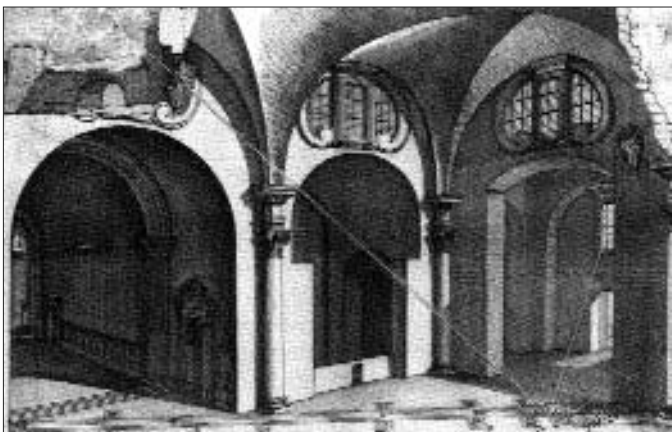
Light in the Cathedrals

“The Sun in the Church” by J. L. Heilbron, in *The Sciences* (Sept.–Oct. 1999), New York Academy of Sciences, Two E. 63rd St., New York, N.Y. 10021.

After condemning Galileo in 1633 for adhering to the heretical notion that the Earth moved about the sun, the Roman Catholic Church, many historians believe, made Copernican astronomy a forbidden topic among faithful Catholics for the next two centuries. “But nothing could be further from the truth,” asserts Heilbron, a historian at the University of California, Berkeley, and a senior research fellow at the University of Oxford.

“Beginning with the recovery of ancient learning in the 12th century and continuing through the Copernican upheavals and on even into the Enlightenment,” he writes, “the Roman Catholic Church gave more financial and social support to the study of astronomy—Copernican and otherwise—than did

any other institution.” The reason for these centuries of lavish backing was the church’s pressing need to establish well in advance when Easter (which was to be celebrated on the first Sunday after the first full moon after the vernal equinox) would fall in a particular year—no easy task, given the state of astronomical knowledge of the time.



A sun ray (right) enters the church of Santa Maria degli Angeli in Rome in this 1703 drawing, meeting a ray from a star near Polaris.

Are Jews ‘Politically Foolish’?

Irving Kristol, coeditor of *The Public Interest* and the “godfather” of neoconservatism, contends in *Azure: Ideas for the Jewish Nation* (Autumn 1999) that his coreligionists are inclined toward “political foolishness.”

In general, the political handling of controversial religious and moral issues in the United States prior to World War II was a triumph of reasoned experience over abstract dogmatism. Unfortunately, since around 1950, it is abstract dogmatism that has triumphed over reasoned experience in American public life. . . .

It is a fairly extraordinary story when one stops to think about it. In the decades after World War II, as anti-Semitism declined precipitously, and as Jews moved massively into the mainstream of American life, the official Jewish organizations took advantage of these new circumstances to prosecute an aggressive campaign against any public recognition, however slight, of the fact that most Americans are Christian. It is not that the leaders of the Jewish organizations were anti-religious. Most of the Jewish advocates of a secularized “public square” were themselves members of Jewish congregations. They believed, in all sincerity, that religion should be the private affair of the individual. Religion belonged in the home, in the church and synagogue, and nowhere else. And they believed in this despite the fact that no society in history has ever acceded to the complete privatization of a religion embraced by the overwhelming majority of its members. The truth, of course, is that there is no way that religion can be obliterated from public life when 95 percent of the population is Christian. There is no way of preventing the Christian holidays, for instance, from spilling over into public life. But again, before World War II, there were practically no Jews who cared about such things. I went to a public school, where the children sang carols at Christmastime. Even among those Jews who sang them, I never knew a single one who was drawn to the practice of Christianity by them. Sometimes, the schools sponsored Nativity plays, and the response of the Jews was simply not to participate in them. There was no public “issue” until the American Civil Liberties Union—which is financed primarily by Jews—arrived on the scene with the discovery that Christmas carols and pageants were a violation of the Constitution. As a matter of fact, our Jewish population in the United States believed in this so passionately that when the Supreme Court, having been prodded by the ACLU, ruled it unconstitutional for the Ten Commandments to be displayed in a public school, the Jewish organizations found this ruling unobjectionable. . . .

Since there was a powerful secularizing trend among American Christians after World War II, there was far less outrage over all this than one might have anticipated. . . . Americans have always thought of themselves as a Christian nation—one with a secular government, which was equally tolerant of all religions so long as they were congruent with traditional Judeo-Christian morality. But equal toleration under the law never meant perfect equality of status in fact. Christianity is not the legally established religion in the United States, but it is established informally, nevertheless. And in the past 40 years, this informal establishment in American society has grown more secure, even as the legal position of religion in public life has been attenuated. . . . In the United States, religion is more popular today than it was in the 1960s, and its influence is growing. . . .

Intoxicated with their economic, political and judicial success over the past half-century, American Jews seem to have no reluctance in expressing their vision of an ideal America: a country where Christians are purely nominal, if that, in their Christianity, while they want the Jews to remain a flourishing religious community. . . . Such arrogance is, I would suggest, a peculiarly Jewish form of political stupidity.

By the 12th century, the popes could see that rough calculations of the sort made by their predecessors did not furnish Easter in harmony with the heavens. “In that emergency,” says Heilbron, “the popes encouraged the close study of the apparent motions of the sun and moon.” Fortunately, ancient Greek mathematical texts by Ptolemy and others were just then being translated into Latin from Arabic versions.

“The key piece of data for making the Easter calculation was the period between successive spring equinoxes,” Heilbron writes. “The most powerful and precise way to measure that cycle was to lay out a ‘meridian line’ (usually a rod embedded in a floor) from south to north in a large dark building, put a small hole in the building’s roof or facade, and then observe how many days the sun’s noon image took to return to the same spot on the line.” Cathedrals were the most convenient large, dark buildings available, and over the centuries they were turned

into solar observatories throughout Europe, says Heilbron.

Though the edict against Galileo obliged Catholic astronomers to identify the sun as the “orbiting” body, that made little difference in scientific practice. And since church officials “tended to regard all the systems of mathematical astronomy as fictions,” Heilbron says, Catholic writers remained free “to develop mathematical and observational astronomy almost as they pleased.”

“The first church meridian built to modern ideas of precision,” Heilbron says, was created in 1655 in the great basilica of San Petronio, in Bologna, in the heart of the papal states. Observations made there by astronomer Giovanni Domenico Cassini, and confirmed by independent observers, notes Heilbron, “amassed unimpeachable evidence” in favor of the Copernican theory that had been condemned by Pope Urban VII and the Inquisition only a quarter-century before.

SCIENCE, TECHNOLOGY & ENVIRONMENT

Architectural Liberation

“A Tale of Two Cities: Architecture and the Digital Revolution” by William J. Mitchell, in *Science* (Aug. 6, 1999), 1200 New York Ave., N.W., Washington, D.C. 20005.

Four decades ago, Danish architect Jorn Utzon’s winning design for the Sydney Opera House, featuring free-form curved concrete shell vaults, presented an extraordinary structural challenge. After heroic labors, the architect and a London engineering firm figured out how to build an approximation of the spectacular curved surfaces. But other parts

of the design were discarded as hopelessly impractical. Ultimately, Utzon was forced to resign from the project. Aside from the magnificent shells, the completed building had little of his design’s freshness and originality.

Today, that story would have a much happier ending, writes Mitchell, dean of the School of Architecture and Planning at the Massachusetts Institute of Technology. For architects, the computer has dramatically narrowed “the gap between the imaginable and the feasible.”

In the past, designers of large and complex buildings were severely limited in the geometric and material possibilities they could explore, Mitchell points out. “Traditional drafting instruments—parallel bars, triangles, compasses, scales, and protractors—largely restricted [them] to a world of straight lines, parallels and perpendiculars, arcs of circles, and Euclidean geo-



The Sydney Opera House’s shells were hard to build, but other parts of the architect’s vision proved impossible.