"is not only a service organization, but also an intellectual organization."

He openly expresses his desire to see the organization become a new focus of international debates on the role of science in the modern world, one of the reasons he is keen to see the United States return as a member. "The benefit to U.S. scientists of being with us is that the very important potential of other scientific organizations can only converge in one organization, such as Unesco."

Convincing the scientific community, according to observers in Paris, that this is a task Unesco is capable of achieving effectively—indeed, that it is even a task which is necessary—will not be easy. Many point out that previous efforts have often resulted in top-heavy, over-centralized bureaucracies.

Mayor, who was deputy director-general under M'Bow between 1978 and 1981, admits to a widespread perception of Unesco being a bureaucratic institution. "It is true that in some parts there is an excessive proportion of administrative personnel," he says. But he quickly adds that "this will not be the case in the future," pointing out that already, under the last 2 years of M'Bow's administration, staff numbers have been reduced by more than 800 and that "unfortunately we will have to abolish another 115 posts." Travel budgets will be cut by 25%, and other economies are being planned. to reach a goal of reducing the operating budget by a further $15 million a year.

In the case of its science programs, he adds, "the first step is to ask the scientists to give their own views on what should be done to increase the efficiency of the organization"—a topic which will be high on the agenda when he meets with members of the National Academy and others next week.

Mayor's moves are being closely watched, in particular to see whether he can chart new directions for the agency and restructure it sufficiently to convince the United States and the United Kingdom to return—but without alienating those Third World member states who would be quick to exploit evidence of excessive pro-Westernism. The U.S. State Department has already made it clear that there is unlikely to be a hasty return to the fold, and that neither good intentions alone—nor vaguely worded commitments to universal principles—will be sufficient.

Mayor himself talks of operating through consensus and compromise, and of not rushing too hastily into changes. The main thesis of his first address to the Unesco staff after his appointment last year was "reforms without disruption." As the author of a book entitled *Mañana siempre es tarde* (*Tomorrow Is Always Too Late*), he is also aware that, in the end, it will be his actions that count. ■

DAVID DICKSON

Severe Fire Devastates Soviet Science Library

Many rare volumes were destroyed in a blaze that swept through the library of the Soviet Academy of Sciences; experts say other Soviet libraries are in poor physical condition

THE library of the Soviet Academy of Sciences, founded by Peter the Great in 1714 and located in Leningrad, is one of the most important book collections in the Soviet Union and in the world. But in February, fire broke out in the library, which quickly became a "a furnace," according to a *Pravda* article. By the time firemen put the blaze out 19 hours later, nearly a half-million books, including many rare 16th- to 18th-century works, were destroyed. Millions of other volumes were damaged by the flood of water that firemen poured into the building.

Six weeks later, the library staff is in the midst of coping with the damage. Last week, foreign conservators, including a team of three Americans, flew to Leningrad to help rescue the surviving books. "It's the biggest calamity in any library in recorded history, I think," said Donald Etherington, who was one of the American consultants and is vice-president of Information Conservation, Inc. But Etherington said he was "impressed" with the Soviet efforts so far. "They seem to have a grip on the problems," he said in an interview.

The fire occurred on 14 and 15 February, but word about it is just now being reported in the West. Library officials at first played down the extent of damage in the Soviet press. But a subsequent article in *Izvestiia* accused library authorities of trying to cover up the disaster and criticized the way they handled the crisis. Similar charges were made by Dimitri S. Likhachev, a leading Soviet scholar, in a speech at the annual meeting of the Soviet Academy of Sciences on 16 March. "The announcements of the library directors, meant to calm the public, have turned out to be half-truths, which, as is well known, are more dangerous than lies," the *Izvestiia* article said.

Of the library's estimated holdings of 12 million books, 400,000 were destroyed, according to Hugh Olmsted, head of the Slavic department of the Harvard College Library, who visited the library after the fire and has been tracking reports of the damage in the Soviet press. Most of the books destroyed were part of the prized Baer system—named after the 19th-century curator and scientist Karl Ernst von Baer. About 188,000 of them were foreign books and

Paul Hosefros/NYT Pictures

The aftermath. *Nearly a half-million books are believed to have been destroyed and millions more are badly damaged.*

editions from the 16th to 18th centuries. The entire newspaper collection from the Soviet period and the foreign periodical sections were devastated. The manuscript division, however, was untouched.

The toll is likely to climb. Etherington says that 3 million books are damaged by water. Mold has formed on some. The Soviets said they plan to disinfect the whole library with Formalin, although the foreign consultants brought up the fact that the chemical is carcinogenic. Many books are charred around the edges, although the print on the page is still intact. Soviet authorities told him that 6,000 local citizens were allowed to take a few books home after the fire to dry them out. They also said that 220,000 volumes have been frozen, a method that buys time for conservators. According to the Soviets, 93% of the water-damaged books are now dry, which "is not an impossible figure, but it's a lot for that time span," Etherington said.

The library is one of the few in the Soviet Union that Western scholars are allowed to use for research.

Likhachev was very critical in his speech about the way the disaster was managed. He pointed out, for example, that a bulldozer was summoned and ordered to destroy huge piles of books and newspapers—burned, wet, or intact. The library staff was forbidden to try to save books from the pile.

The cause of the fire has not yet been determined, although faulty electrical wiring has been mentioned. But whatever the cause, the fire spread rapidly through the concrete building through air ducts, according to *Pravda*. An *Izvestiia* correspondent reported that "we were stunned to learn" that old editions were right next to electrical wiring, the main stacks were extremely overcrowded, and the library had no fire alarm.

Olmsted noted that Soviet libraries in general are in poor shape and are "in jeopardy." Fires have occurred in other libraries.

Likhachev said that Pushkin House, which is the Academy's Institute of Russian Literature in Leningrad, and houses all the manuscripts of Pushkin and many of Dostoyevski and other major Russian writers, is "in danger" because of fire hazards.

Olmsted says that the central research library of Moscow University, Gorkii Library, is reportedly suffering from water damage. The Lenin Library in downtown Moscow is in "delicate" shape, he says, because construction work on the city's subway, which runs underneath the library, has caused structural damage to the walls and foundation of the building.

And the State Public Historical Library, also in central Moscow, is in bad shape. This is "one of the great libraries of the Soviet Union," Olmsted said. A fire in 1980 caused extensive damage to the collections. In addition, the building and the holdings are being ruined by leakage from a poorly designed annex now being built onto the main facility. A recent article in the Soviet *Literary Gazette* said that "the construction has closed off the main source of ventilation for a large section of the books, and the room temperature has risen drastically. The new roof traps water, so a tremendous amount of water has gotten into the building and damaged books, as many as 2000 to 4000." Some of the reading rooms have been closed or restricted. Basic stacks and newspaper holdings are closed.

"The staffs of many libraries are eager to get the word out," Olmsted said. ■

MARJORIE SUN

Paul Hosefros/NYT Pictures

Water damage. *Books drying in the main reading room.*

Laser Team Leaves Stanford for Duke

Raleigh, North Carolina

A laser inventor who made his reputation at physics research meccas on the West Coast says he is moving to the Research Triangle area of North Carolina in a bid for more flexible living and working arrangements.

John M. J. Madey will move his free-electron laser, the Mark III, from Stanford to Duke in July. Duke plans to move an old Van de Graaff particle accelerator out of an underground campus laboratory to make room for the Mark III. In addition, the university will build a $2-million surface laboratory to house a more ambitious proposed free-electron laser that is expected to be capable of reaching 1 gigaelectron volt. Madey will also bring with him an electron storage ring for his new laser.

"His principal and up-front inducement had to be some place to house his big new project. Not every university has the ability or space to put up a new building," said Lawrence E. Evans, chairman of Duke's physics department. Madey's undisclosed salary was less of a factor. "I think it is fair to say that other considerations that made it an attractive place were decisive."

Madey, 45, is considered the inventor of the free-electron laser, which he first began contemplating in the mid-1960s while still a California Institute of Technology undergraduate. Some other scientists dismissed the notion of producing laser light from accelerated electrons that had been stripped free of their confining atoms. But Madey made his concept into a working model by 1977, during his years at Stanford, where he has been a research professor of electrical engineering and high-energy physics.

Free-electron lasers can be tuned to various frequencies and are powerful enough to be leading candidates for the Strategic Defense Initiative space anti-ICBM program. But Madey, who is frequently shuttling between the West and East coasts, said in a telephone interview that his work in North Carolina will be basic and nonmilitary.

He acknowledged that the Research Triangle is not known as a hotbed for laser research. But he said that is less important than it once was. He is now looking for opportunities to apply his invention to a number of scientific fields by working with collaborators at Duke and three other area universities.

He listed surface interface science, semiconducting and optical materials research, basic biology and biochemistry, and lasers in human and veterinary medicine. He has concluded that there is "broader based" work going on in those fields in the Research Triangle area "than any comparable area in the U.S." Madey also cited living conditions for his graduate students and staff as a factor. Compared to the Palo Alto area, the cost of housing in Durham is a bargain.

In the Triangle, his lasers can be used by scientists at three major campuses—Duke, the University of North Carolina at Chapel Hill, and North Carolina State University in Raleigh—as well as the smaller North Carolina Central University in Durham.

"I think it was the overall level of effort in the Triangle that convinced me it was the place to go." ■ MONTE BASGALL

Monte Basgall is a reporter for the News and Observer *of Raleigh, North Carolina.*