SCIENCE MUSEUMS

Mass Job Extinctions at L.A. Museum

Los Angeles is known for movie stars and celebrity glitz, but for the more scholarly minded, one of the city's main attractions is the Los Angeles County Museum of Natural History. Home to an important collection of fossil vertebrates, many from the famous Rancho La Brea tar pits, the museum also boasts collections and research on living marine invertebrates, fish, and reptiles.

But now Los Angeles County, battered by social crises and budget shortfalls, is slashing the museum's funding, and the 80-year-old institution faces what some call the worst financial situation in its history. In January, 42 positions were lost, including 18 in research and collections, eight of them belonging to Ph.D.s. Another round of even more severe job cuts is imminent this month, and curators fear that the museum's traditional scientific strengths, especially in paleontology, will be gutted.

GEORGE C. PAGE MUSEUM

On the brink. Workers at L.A.'s George C. Page Museum prepare fossils, but paleontology research at the museum is in danger of extinction.

The museum operates under an unusual public-private partnership, and director Craig Black reports both to the county and a private, nonprofit museum foundation. In the past few years the foundation has taken on a larger role as public funding has dwindled. But the county is still the museum's primary support: Last year, it provided the museum with $12.2 million of its total $17.5 million budget; the foundation gave the rest.

Halfway through the last fiscal year, the county cut the budget and the foundation was unable to make up the shortfall; that created the January crunch. In addition to the layoffs, the botany department was eliminated completely and its specimens are to be transferred elsewhere, says Black. These maneuvers saved the museum about $2 million, but that wasn't enough. More county budget woes this spring mandated more cuts, and in the next few weeks Black may have to carve out another $2.4 million—about 16%—from the budget. If these cuts go through, 29 additional people will be sliced from the county payroll, and 15 of those will be in collections and research. The move, says Black, will crop the museum to "the very, very basics for an institution of this size."

Amid the crisis, museum officials are scrambling to find creative sources of revenue. They've turned to a mall—hardly a novel idea in L.A.—and in May opened an exhibit gallery in a Burbank shopping complex to attract paying customers. Another proposed project will enshrine Angelenos' favorite form of transportation: a new museum of cars.

But some curators resent the money being spent to launch these projects, and grumble that cars are anything but rare in L.A., while paleontologists are becoming an endangered species. They charge that paleontology, one of the museum's historic strengths, has taken more than its fair share of cuts. The invertebrate paleontology staff, for example, has already been slashed from four to two. Invertebrate paleontologist Ed Wilson and one assistant are "rattling around in 12,000 square feet" and managing 3.5 million specimens, says Wilson. "If there's an additional cut in this section—if I'm laid off—then invertebrate paleontology here is out the window." Wilson's job, as well as his assistant's position, are among those up for elimination.

In addition, the George C. Page Museum, a museum branch located at the tar pits and housing 3 million fossil specimens, lost two of its four curatorial and collections staff in January; at the museum's central facility, one Ph.D. vertebrate paleontologist and a technician were let go. In the next round of cuts, another Ph.D. vertebrate paleontologist and two technicians may be laid off. Meanwhile, in invertebrate zoology—a department in which several recent hires have been funded by the foundation—all four Ph.D. curators are still on staff; only one assistant took early retirement.

Black, himself a vertebrate paleontologist, insists that his discipline was not singled out for cuts, and that the museum still has active research in paleontology. But he acknowledges that his strategy is to maintain a few top-performing research areas such as marine invertebrates, which has garnered plenty of outside grant money. He also admits that the looming budget ax has created a tense atmosphere that he, as well as his staff, feels. He has officially announced plans to retire next year. But unlike other museum paleontologists, Black will be replaced.

–Elizabeth Culotta

NATIONAL INSTITUTES OF HEALTH

Panel Finds Gaps in Violence Studies

At a jail for young offenders in Atlanta last month, Berkeley sociologist Troy Duster interviewed a 14-year-old boy who was serving time for attempted murder. Why, Duster asked the boy, had he tried to kill someone? The boy replied, simply, "He dissed me."

In a Bethesda, Maryland, hotel conference room last week, Duster and other experts on human behavior tried to figure out just where, as a motive for murder, "being shown disrespect" fits in the portfolio of 300 research projects on violence and aggression sponsored by the National Institutes of Health (NIH). The panel, convened by NIH Director Bernadine Healy, is the first body ever to evaluate NIH's total package of violence research. Its intent is to determine if the institutes are ignoring lines of investigation that would serve scientific needs and the public interest. It is also supposed to decide whether NIH is pursuing projects that, for social or ethical reasons, it should avoid. By the week's end, the panel had made some headway on the first task, suggesting more studies into social causes of aggression, but sidestepped—temporarily—the second.

Violence has proven to be a dangerous subject for NIH. During the past year, the agency has been assailed by members of the black community over its support for a proposed University of Maryland conference on genetics and crime. The attack was spearheaded by a persistent NIH nemesis, Bethesda-based psychiatrist Peter Breggin, who views much violence research as potentially tainted with racial bias. NIH later rescinded its support for the conference, forcing Maryland to cancel it. NIH also came under fire for its role in the Department of Health and Human Services's (HHS) violence initiative, a plan conceived by former HHS secretary Louis Sullivan to assess and fill gaps in violence research at a number of HHS agencies. The thrust of the objections was that such research, some of which involved drug treatments, would justify the wide-scale use of drugs "to pacify" blacks (*Science*, 9 October 1992, p. 212). According to an HHS official, the violence initiative is "dead."

But violence research at NIH, as the panel heard, is very much alive. Nine institutes and two centers have funded about 300 re-

search projects totaling $42 million for 1993, with the bulk of the work being done at the National Institute of Mental Health (NIMH). Much of the NIH violence research is aimed at determining biological factors that may underlie violent behavior. One study is examining how motor neurons control a sure sign of aggression—movements of the gill covers in fighting fish. Other studies explore a possible genetic basis for violent behavior, investigating whether families of suicide victims have higher than average suicide rates.

But the panel noted an overemphasis on biomedical investigations, with few inquiries into violence's social causes and consequences. Says panel member Eli Newberger of Boston's Children's Hospital: "It's manifestly plain that the NIH investment in violence studies are restricted in the range and pertinence of investigations." The panel called for more research on "hate violence" inflicted according to religion, sexual orientation, race, and ethnicity, such as "gay bashing." The panel also concluded that too few studies are being done on violence inflicted on the elderly, as well as violence involving Hispanic, Native American, and Asian peoples as either victims or perpetrators.

However, the panel hasn't been able to agree on the research areas that NIH should avoid. In a tense exchange, panel member Susan Solomon, head of NIMH's violence and traumatic stress research branch, argued that the panel's mission was to suggest ways to correct program deficits, rather than target programs for elimination. "This is not a zero-sum game," she said. Cornell neurologist and panel cochair Fred Plum argued, however, that "we have to be pragmatists." He felt the panel shouldn't assume that NIH would win more money for new research programs, and if it recommends new research it should also suggest cuts to existing programs for balance. The rest of the panel decided to defer the discussion on cuts until their next meeting on 12 July.

The studies most likely to be proscribed at the next meeting, say panelists, are those that might yield important results but are fraught with overtones of insensitivity. For instance, studies of monkey social behavior might yield insights into human social problems. "Clearly, monkey studies would tell us a lot about the cause of violence, and would be cheaper than incarceration," claims one panel member. "But in the environment today, they would be impossible to do," he says, referring to the controversy that ensued when Frederick K. Goodwin, then director of the Alcohol, Drug Abuse, and Mental Health Administration, in a February 1992 speech compared "high-impact inner-cities" to jungles. Monkey studies, the panel member says, "wouldn't possibly be politically correct."

–Richard Stone

JAPAN

Breaching Industry-University Barriers

TOKYO—Achieving harmony in Japan sometimes takes a lot of work. Consider industry and academia. Japanese industrialists view Japan's universities as little more than a filter for sifting out the brightest of the next crop of employees. University professors resent the neglect and enviously eye the well-equipped and well-funded corporate labs now edging into basic research—their turf.

But the two sides are starting to come together over a common concern: the state of research in Japan. Last week, a group of industrialists and academics sought to move the process of convergence along with a joint statement aimed at improving the nation's academic research. Drafted at an ad hoc meeting held in Tokyo, it calls for increased research cooperation between industry and universities; more international exchanges; and, of course, more public and private support for university-based basic research. Japan's government is asked to get both more involved—by increasing funding—and less involved—by loosening control.

The statement is the brainchild of two heavy hitters: Hiroyuki Yoshikawa, president of the University of Tokyo, and Yotaro Iida, chairman of Mitsubishi Heavy Industries Ltd. After holding private discussions, each gathered a delegation of a dozen or so representatives from their respective fields for last week's meeting. Officials from the Ministry of International Trade and Industry (MITI), the Ministry of Education, and the Science and Technology Agency participated as observers.

"A national consensus has been reached that there is a problem."

—Genya Chiba

The declaration outlined "proposals" directed separately to universities and to industry. Universities are called on to subject research programs to outside evaluation; to establish new departments and curricula to reflect changing disciplines; to nurture scientists capable of original, basic research; and to promote more international exchanges by hiring foreign teachers and researchers and encouraging participation in international conferences. Industry, for its part, is encouraged to support basic research at universities and to promote graduate studies by expanding opportunities for those holding advanced degrees. Both sides are urged to exchange researchers and research results.

As for the government, it is urged to provide more money for everything from research to supercomputers and high-speed communications networks. The declaration quoted the Science and Technology Council, Japan's highest science policy-making body, which last year called for "government investment in research and development to be doubled as soon as possible."

The statement caps trends that have been building over the past decade. One is the beginnings of industry-university collaboration: More than 1100 joint university-industry research projects, with funding of about $41 million, were under way in the fiscal year through March 1992, up from fewer than 100 in 1983. Another is an increasing openness on the part of universities. The University of Tokyo physics department, for example, recently invited an external evaluation of its policies and programs. But university officials and industry leaders continue to worry about decaying university facilities and dwindling student interest in industrial technologies, which the declaration described as "the foundation of our nation's prosperity."

Tokyo's University's Yoshikawa acknowledges that the statement is long on goals but short on specifics for remedying these problems. The group is planning semi-annual meetings to work out more specific proposals, he says. But in the meantime, the statement is seen by some as an important sign that industry and academia are finally trying to bridge the gap that has separated them in the past. Genya Chiba, the founder of Japan's famed ERATO program at the Research Development Corporation of Japan, puts it simply: "There has been little trust, on both sides."

"University professors have no experience of working in private industry," says Iwao Toda, a managing director of Fujitsu Ltd. who has long been involved in research. This means that when it comes to setting objectives for cooperation, "It is hard to reach an understanding," he says. Professors, meanwhile, complain of institutional barriers to closer cooperation. Kinichi Obi, dean of the faculty of science at Tokyo Institute of Technology, notes that industry is within MITI's sphere of influence; universities are under the watchful eye of the Ministry of Education.

After 10 years of discussions about university-industry cooperation, says Chiba, "a national consensus has been reached that there is a problem."

–Dennis Normile

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