ACADEMIC COLLECTIONS

Japan Shakes the Dust off Treasure Trove of Specimens

Valuable specimens that have long languished out of sight of both researchers and the public are being cataloged and put on display in university museums

KYOTO—For decades, Japanese university scientists have traveled around the world collecting everything from fossils and mineral samples to pottery shards and plant specimens. But after being shipped home, the material all too often gathered dust in basements and odd corners around campus. Its value was lost not only to researchers, but also to professors who wanted their students to get a hands-on view of doing science. "I had to send the students to a big museum somewhere to see good specimens," says Kyoto University paleontologist Terufumi Ohno.

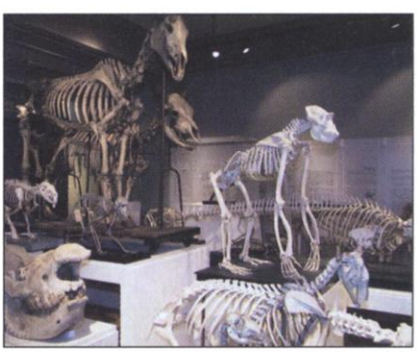
Next week Kyoto University will begin to turn that situation around with the opening of a $50 million museum that showcases its fine collection of paleontological samples. It's part of a trend that's sweeping Japan's campuses: Seven university museums have been established in the past 4 years, with five more on the drawing boards. Kyoto's museum is the first to receive government funds for a new building, with proper exhibit and storage facilities. "A lot of resources have been wasting away," says Yoshihide Akatsuka, deputy director of the Scientific Research Institutes Division of the science and education ministry, which estimates that such academic storehouses contain up to 90% of the 25 million scientifically valuable samples in Japan.

One reason for the sorry state of the current collections is the historic autonomy of Japanese professors. Individual departments or laboratories are unofficially responsible for the samples, but there has been little time and money to catalog and display the material properly. A lot of specimens have simply been thrown away, suspects Tokuhei Tagai, a mineralogist at the University of Tokyo Museum. "It's really a shame," he says.

One small exception has been at the University of Tokyo, which in 1966 set up what in English was called a "museum." But its Japanese name, "materials depository," more accurately described its function. "There was little curatorial work and no exhibits or displays," says Tagai.

Indeed, when university officials were preparing an exhibition to mark the university's 120th anniversary in 1998, their search of departmental storerooms turned up a treasure trove. Among the materials were a book of botanical specimens collected in Japan by the renowned 19th century German naturalist Philipp Franz von Seibold and hundreds of photographic plates of the campus just before the devastating 1923 earthquake. The officials discovered more than 6 million items, most of them spottily cataloged and all very difficult for scientists and scholars to access. In 1997, the university converted the materials depository into a museum, just as an Education Ministry advisory committee recommended the creation of additional university-based museums.

On display. Kyoto University's Terufumi Ohno stands in front of the new University Museum. Its opening next week is part of a move to showcase valuable academic collections like the exhibit "Bone" at the University of Tokyo *(below)*.



Museum officials say the increased accessibility of the collections is already paying off scientifically. Archaeologists from the University of Tokyo, for example, recently used jade samples from the museum's collection to prove that the jade used in Korean ornaments that are up to 5000 years old must have come from Japan. That conclusion supports theories that traders crossed the Japan Sea earlier than historical records indicate.

The universities also hope that the new displays will be popular with the public. Drawing on materials from its collection, Tokyo has mounted an exhibit of human and animal skulls and skeletons, called "Bone," that explains how scientists use bones to establish evolutionary links and make deductions about prehistoric environmental conditions. Kyoto is using its permanent exhibit to highlight ongoing research, such as a diorama with catwalks strung through a tree canopy to simulate the university's Ecology Research Center in Borneo. Another corner features Kyoto's Primate Research Institute, with video clips that show how wild chimpanzees use stones to crack open nuts or how a mother deals with the death of her infant. Nobuo Shigehara, a primatologist at the institute, hopes to update the exhibits periodically if he gets sufficient money to do so.

The Education and Science Ministry is providing small sums to support some of the museums, and ministry officials are cautiously optimistic that they can provide modest funding increases. But a governmentwide campaign to reduce the number of employees has forced universities to operate their museums with undersized crews. Tokyo has nine faculty members assigned to the museum, while Kyoto has just six—and no trained curators or technicians. "Colleagues from overseas laugh when I explain this," says Kyoto's Ohno, who welcomes the chance to show his students some of the school's collection, including Precambrian bivalve fossils that he studies. "They wonder how we can have a museum without curators and technicians."

Ohno hopes to ease the burden by using 30 retired professors who have offered their time, either to lecture or to help classify and catalog specimens. Tokyo's Tagai says that much of the restoration and cataloging must be done piecemeal, often as part of setting up a new exhibit. Despite these obstacles, both men hope that the opening of the Kyoto museum signals a new era of openness and support for scientific collections.

–DENNIS NORMILE

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