SCIENCE AND ART

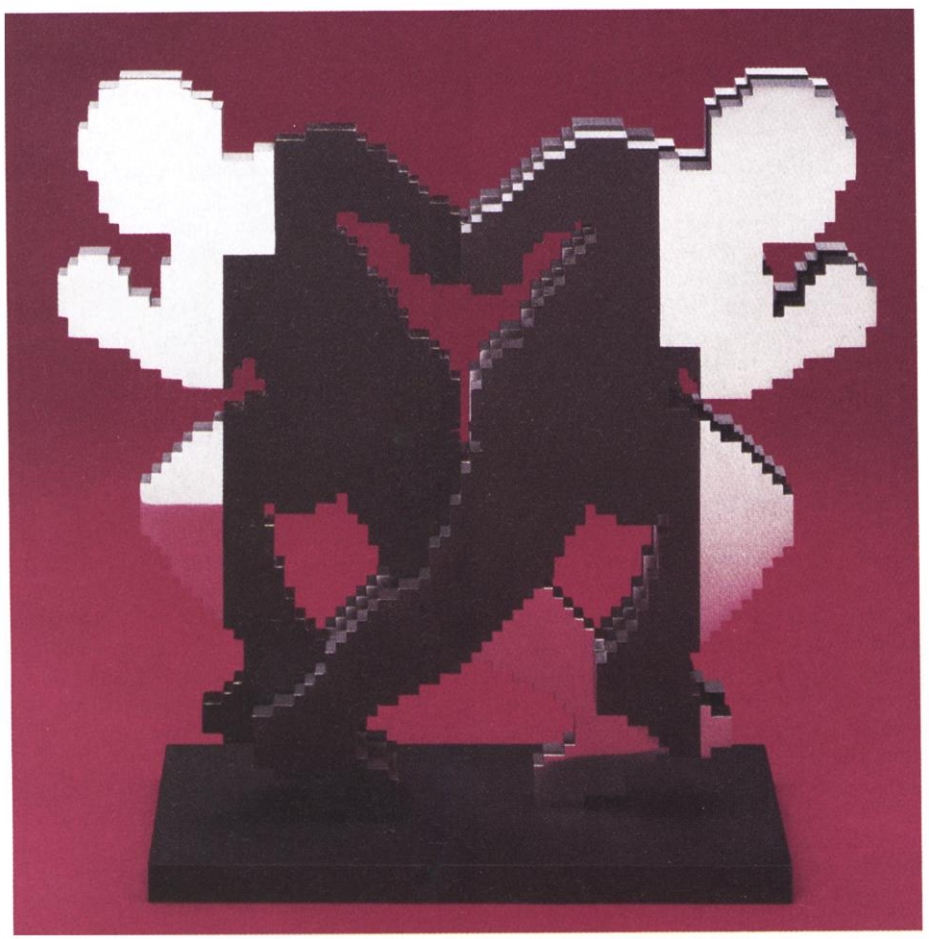
AAAS Builds Bridges Between Science, Art

A photograph of a piece of sculpture created from old piano parts—salvaged ivory keys and wires—did little to catch Shirley Koller's eye, as she considered the work of artists for future exhibits at AAAS. The curator of the Association's arts program did respond, however, to another artist's work—paintings that dealt with time and space, with objects that seemed to hang suspended, as if to ask, "What are we doing here?"

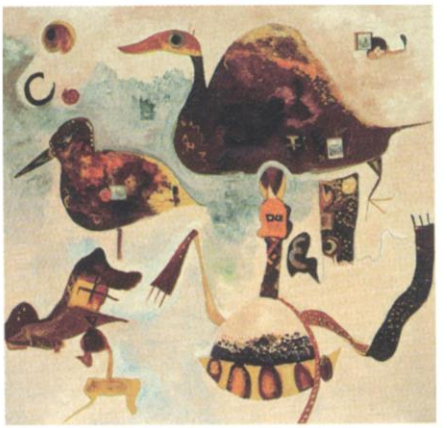
"I'm looking past the mundane," said Koller, an artist who works for AAAS as a consultant. "I respond greatly to the mathematical dimension and to space. Also, to a sense of emotion and connection to the natural world. I'm also looking for things that relate to modern technology, to music and sound, to a certain energy."

For the last 16 years, AAAS has had a program called the Art of Science and Technology, which organizes three exhibits a year that "span the range of scientific inquiry," according to Virginia Stern, director of the program.

"The AAAS concept of art is very broad," said Stern, who is also director of the Project on Science, Technology and Disability for the AAAS Directorate for Education and Human Resources Programs.



***Run*, anodized aluminum, by David Bakalar.**



***DNA Birds*, oil on canvas, by Lila Snow.**

"But we do try and get a true science or technology connection from each artist."

The program began modestly as a way of improving the quality of the artwork that hung on the walls of the former AAAS headquarters on H Street, N.W. Since then, however, in addition to organizing the periodic exhibits that now occupy the first floor and sometimes the second floor of the new AAAS building at 1200 New York Avenue, N.W., Washington, D.C., Stern has overseen the growth of the AAAS permanent collection, which now numbers about 700 works of art. Among those works is one by Boston artist David Bakalar, a retired entrepreneur and materials scientist, whose sculpture greets visitors at an entrance to AAAS at 12th and G.

Bakalar's work, including abstract sculptures that mix metal and granite and paintings with geometric themes, reflects particularly well the arts program's effort to capture the "centuries-old interaction between art and science," Stern said. "He uses his knowledge of materials as a scientist to express himself artistically."

Lila Snow is a chemist whose work has included the tools used in scientific laboratories as well as ideas based on her interest in genetics. Snow, whose exhibit of collages and paintings took place at AAAS nine years ago, noted that the interaction between science and art seems natural to her. "It enriches each discipline to have this interchange," Snow said. "Scientists love art and artists love science."

Viewing hours of the AAAS art exhibits are Monday through Friday, 9 a.m. to 5 p.m. For more information, please e-mail vstern@aaas.org, or call Virginia Stern at 202-326-6672.

SCIENCE COMMUNICATIONS

Web Site Marks 5-Year Birthday

Jean-Michel Bader, science writer for *Le Figaro* in Paris, says that the AAAS Web site, EurekAlert! (www.eurekalert.org), has transformed his professional life.

Until five years ago, when AAAS first launched the site, Bader says that he, like most science writers, "chased after journals and scientists" to stay on top of the latest research news, always concerned that a colleague at another paper would get the story first.

"We can now prepare our articles in advance, calmly and with depth, and they are ready to go in the paper the moment we are allowed to publish," said Bader, who covers life sciences for the publication that is read throughout the Francophone world.

Since 1996, EurekAlert! has offered universities, laboratories, and other research institutions a place to post breaking news on line, and to do it so that reporters have access to information ahead of time and can prepare accurate stories that are published the day the research news is officially released. Reporters may use this "embargoed news" section of the Web site, as long as they promise to respect the publication date imposed by the relevant institutions. More than 3600 science writers have signed up to use the site, and their response, when asked, is one of gratitude.

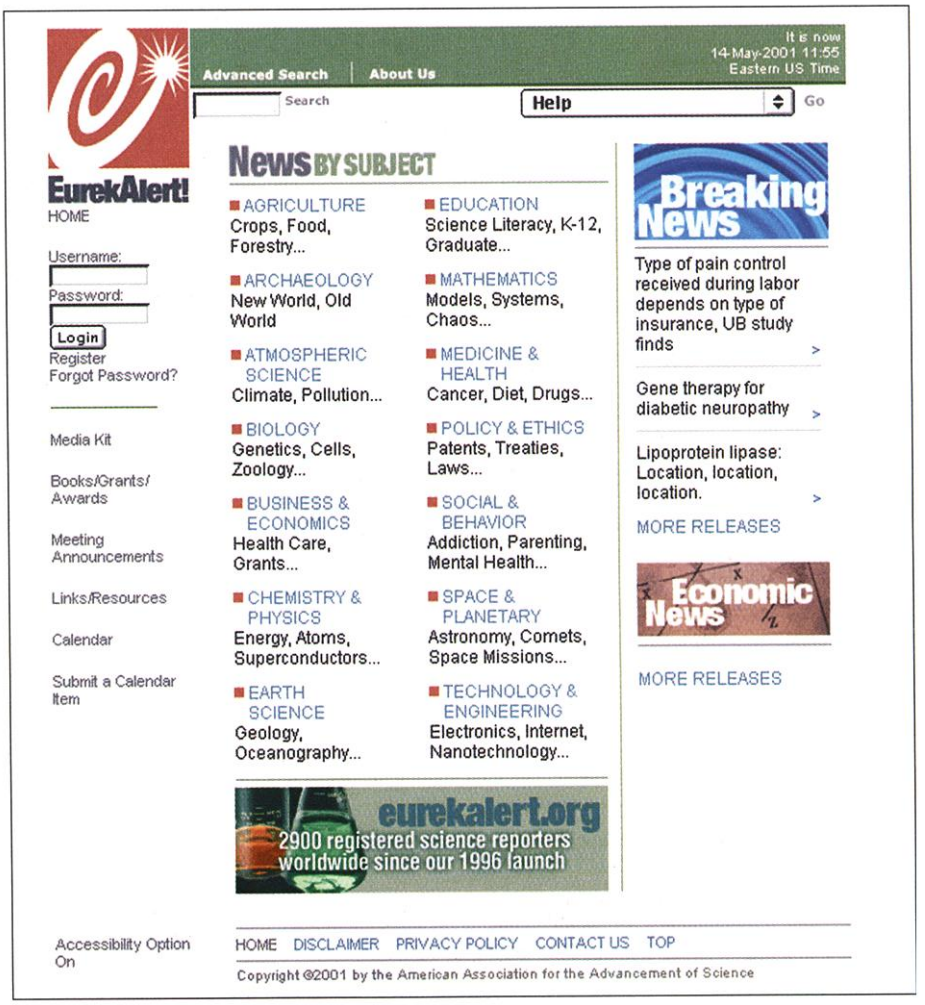
"[EurekAlert!] has become a staple of my daily routine," said *Washington Post* reporter, Rob Stein. "I log onto it first thing in the morning and check it regularly throughout the day."

At *The Daily Mail* in London, science correspondent James Chapman also checks the site before he starts his day. "You can't say much more than that about its importance," Chapman said.

Christina Berndt, science writer at *Seuddeutsche Zeitung* in Munich, always had access to research news from major science journals, but she now writes on studies found in more specialized journals and produced by institutions she never would have heard from in the past.

"On EurekAlert! you find stories you would not normally find yourself," Berndt said.

The Web site began as an idea that took shape under the auspices of the AAAS News and Information Office, with the help of a group of science writers and public information officers at institutions around the United States. Many of the original founders still sit on the EurekAlert! advisory board. The site is supported through subscriptions or fees paid for by hundreds of institutions that have posted releases on the site. As of the spring of 2001, the site has collected nearly 20,000 press releases, 86% of them announcing new research findings. The number of releases has almost doubled since January 2000. The number of journalists signed up to use the site has tripled since 1998; 88% of the journalists say they use the site at least weekly, and 40% of them are based outside the United States.



Home page of EurekAlert!'s new Version 3.0, scheduled to be launched in the coming weeks.

Fits AAAS Mission

"It was an idea that I saw could help us and a lot of other organizations," said AAAS Executive Officer Richard Nicholson. "And I believed that (AAAS News and Information Director) Nan Broadbent could pull it off. I think I was right. EurekAlert! fits hand in glove into our mission to communicate science to the public."

In June, AAAS will launch Version 3.0 of EurekAlert!, which will allow journalists to indicate their preferences in terms of the news that interests them. The page they first see when they sign on will then contain news about the topics they have chosen.

"As the volume of news releases on our site grows, it becomes important for reporters who cover specific fields to be able to find what they want without wading through hundreds of releases that are irrelevant to them," Broadbent said. "EurekAlert!'s new design allows reporters immediate access to what they need."

A new feature on the site will allow institutions that subscribe to EurekAlert! to list as many as 60 experts on the site in a National and International Experts Database. Journalists may also "customize" an experts page that includes the sources they call most frequently. Another feature will provide "modules" about hot topics in science—mini-lessons with summaries of what is known about the issue, as well as links to a glossary of terms and research articles, and a list of relevant experts.

Chapman, of *The Daily Mail*, said he looks forward to the new version of EurekAlert!, as it will continue to make it easy for him to write about complex scientific issues. "I don't have a science background, so it's useful to have information on the site that is digested so that it is understandable."

SCIENCE POLICY

S&T Policy Careers Focus of Workshop

As the worlds of science, government, and society are transformed by the passage of time, the people who study and analyze how those worlds interact must keep pace.

In an effort to provide guidance to people interested in careers as Science and Technology (S&T) policy specialists, the AAAS Committee on Science, Engineering, and Public Policy sponsored the first AAAS Workshop on Science and Technology Policy Careers on 5 May 2001.

Willie Pearson Jr., Chair of the AAAS Committee on Science, Engineering and Public Policy, first floated the idea for the workshop at the AAAS Annual Meeting in February 2001. Pearson told the participants at the May event that different generations of S&T specialists would have to find a way to communicate with each other.

"You live in a far more global village," Pearson said. "We need a forum where persons of my generation and up can interact with you and get to know who you are, so we can pass the baton in a much more systematic way."

Career Expectations

Panelists representing different fields within academia and the public, private, and nonprofit sectors discussed topics such as science policy career paths, gender issues, federal agency expectations from S&T policy professionals, and funding sources for students. Panelists also answered questions from the audience of about 150 people.

Susan E. Cozzens, Chair of the School of Public Policy at Georgia Institute of Technology, gave a keynote address on what to expect from S&T policy careers.

"It is patently true—has been in my career, will be in yours—that science and technology do not live up to their full potential for benefiting all of humankind," Cozzens said. "One of the realities is that you will be working for one specific interest ... it will be important for you to fight that out, but as a professional, you have a general responsibility to the public."

In a panel titled "The Yellow Brick Roadmap," Julie E. Fischer, a AAAS Congressional Science Fellow working for the Senate Committee on Veterans' Affairs, Democratic Staff, moderated a panel of speakers, each of whom spoke of the development of individual S&T policy careers, from the frustrations to the rewards. At least one member from this panel, and one from another panel, entitled "The Future of the S&T Policy Profession," expressed frustration with the lack of ethnic, racial, and gender diversity in their chosen field.

In addition to the people who do research in science, technology, engineering, or social sciences, S&T professionals, who often work in both government and academics, must believe in the "transformative powers of science and technology," Cozzens said. The professionals contribute to and draw from a "base of knowledge we build in the field about the science and technology enterprise and how policy affects it," but they also need to keep the "big picture" in view, particularly when thinking about the partnership between analysis and vision, she continued.

Panelist Victoria Friedensen, a program director at the National Academy of Engineering and former head of the Academy's Diversity in the Engineering Workforce Project pointed out a need to change the "systemic" gender imbalance within the physical sciences, engineering, and mathematics. Friedensen also noted the need for a work force that can take care of technological systems, such as the nuclear power plants that were put in place by the "Sputnik" generation of scientists and engineers.

The workshop, which followed the 26th Annual AAAS Colloquium on Science and Technology Policy, was open to the public at the AAAS. The event organizers included David G. Cooper, Project Coordinator at the AAAS Center for Science, Technology, and Congress, Julie Fischer, Jacque-Lynne Schulman, NIH's National Library of Medicine, Samir Singh, Intern for the AAAS Center for Science, Technology, and Congress, and Elmer Yglesias, candidate at the School of Public Policy at Georgia Institute of Technology. For more information, e-mail science_policy@aaas.org.

–LISA ONAGA

INTERNATIONAL POLICY

AAAS Staff Lead Delegation to Cuba

This past April, staff members of the AAAS Directorate of International Programs and the Science and Human Rights Program led a congressional delegation to Cuba, with the goal of increasing the scientific collaboration between the United States and Cuba. The delegation included House Science Committee Members Congressman Jerry Costello (D-IL) and Congressman Nick Smith (R-MI), and staff.

The visit provided an opportunity for the congressmen to observe aspects of Cuban science, including the country's efforts in public health, biotechnology, and sustainable agriculture, as well as partnerships taking place between the two countries and the benefits derived from their scientific collaboration.

"Both the Science and Human Rights Program and International Programs at AAAS have a history of working with countries with which the United States has little or no diplomatic relations, such as the Soviet Union during the Cold War and Chile during the Pinochet regime," said Marina Ratchford, Senior Program Associate of Latin America and the Caribbean Program at AAAS. "We hope that by continuing with this process through scientific exchanges and collaboration, it will eventually lead to normalization of political and diplomatic relations."

History of Collaboration

In the past, AAAS has undertaken several efforts to forge scientific collaboration between the two countries. In 1997, Rita Colwell, former AAAS President and current director of the National Science Foundation, and Richard Getzinger, Director of International Programs, conducted a mission to Cuba to assess the status of Cuban biotechnology and health. Cuba has been praised for its progress in both arenas. In the same year, the staff of AAAS's Science and Policy Programs visited Cuba to investigate the effect of travel restrictions on Cuban scientists. In addition, AAAS established a Clearinghouse of Information on Scientific and Academic Travel between Cuba and the United States.

During the recent three-day trip, the delegation met with the head of the Cuban Ministry of Science, Technology and Environment, the President of the National Assembly, and staff of the Agricultural Import Office and the Center for Genetic Engineering and Biotechnology. The trip also included visits to the Pedro Kouri Institute, Latin American School of Medical Sciences, Sierra del Rosario Ecosystem (Pinar del Rio), and the William Soler Cardiovascular Center.

Information about all or any of these programs and projects is available on the AAAS International Program's Web site at www.aaas.org/international/index.shtml

–NISHA NARAYANAN