

# Creativity—The Human Resource

A review of the new touring exhibit

BY JOHN H. DOUGLAS

A major new exhibit, described by one of its planners as a "celebration of creativity," has begun its national tour at the California Academy of Sciences in San Francisco. Incorporating memorabilia of contemporary artists and scientists, computer games, a film on creative environments and a variety of printed material, "Creativity — The Human Resource" will tour science museums of nearly a dozen cities during the next three years under sponsorship of the Chevron family of companies.

The exhibit was designed by The Burdick Group of San Francisco, whose director, Bruce Burdick, shows no hesitancy in proclaiming his ultimate goal of revolutionizing science museums as well as teaching everyone how to be more creative. "We've had a vested interest in keeping creativity mysterious," he says, and this exhibit will give ordinary people the opportunity to participate in the "activities that creative people do."

At the heart of this effort lies the exhibit's use of computers, which, Burdick says, will be the "key of access to museums of the future." In cooperation with Epstein and Berghorn, a computer consultant firm in Chicago, Burdick and his co-workers designed a series of computerized games and information retrieval programs simple enough for grade school children but challenging enough for adults. The games emphasize the sort of pattern recognition skills psychologists have been saying reside in the neglected right hemispheres of our brains. And the information retrieval system demonstrates the power of computerized cross-referencing, through a focus on the history of creativity in the United States during the last century.

"We're pushing the state of the art," Burdick says of the microprocessor systems used in the exhibit. Ultimately, he believes, such systems will help science museums become "alternate resources of knowing and understanding" rather than simply repositories of artifacts.

This point is unintentionally brought home by the displays of memorabilia of contemporary "creative people." I have dropped by the exhibit on several occasions just to see who was trying to learn to be creative and how they were going about it. Invariably the computer terminals had waiting lines and the biographical sections stood almost empty — their signs unread, their videotapes blaring to no one in particular.



Vano Photography

*Do-it-yourself history of creativity: From a wall of notes sprang a lively film on the elements of a creative climate. Computers (inset) may help change role of museums.*

The short film — "The Creative Climate" — also was not well attended, but that may have something to do with its location at the far end of the present hall. I would expect that later, perhaps on television or in the classroom, this animated film will be better appreciated for what it is — a small jewel of cinematic technique and an impressive condensation of considerable research.

The film's creators have extended a technique made famous by Monty Python — superimposing extremely flat images taken from old etchings, then having them suddenly spring to life by making them move as if in three dimensions. With this inherently amusing blend of classical images and surrealistic expression, the Burdick Group's filmmakers set about to build an imaginary climate that would foster creativity. But where to begin? Despite the amount of data available in the psychological literature on individual creativity, they found that comparatively little has been written on what makes an environment creative.

To solve this problem, the group essentially wrote their own history of human creative achievement — on index cards that covered a whole wall. By examining

those eras of history that seemed particularly ingenious, they selected five characteristics of a "creative climate": *institutions* to support creative effort; *mobility* so that artists and scientists with similar interests can communicate with each other; a stream of new *tools* that increase the effectiveness of an individual mind; *material surplus* to allow time and resources to be spent on speculative ventures; and a receptive *audience* to help the creative individual overcome obstacles.

Both the film and the other exhibits, however, skirt the problem of controversy and criticism in creativity by repeating time and again that the creative individual needs freedom. That blandly reassuring premise is true as far as it goes, but equally important is the realization that this dynamic freedom is nourished by a constant tension with outside forces. Thus in the exhibit the sounds of composer John Cage are accepted unquestioningly as "music," although some critics might consider them as mildly suggestive noise. And chemist Linus Pauling is allowed to declare, "I don't have any biases; I just try to find the answer" — a statement that would surely make some equally eminent opponent of his views on vitamin C gag.

Still, this exhibit marks perhaps the most ambitious project ever devised to share with the average person what has been learned from scientific studies of creativity. That research has already produced considerable evidence that most of us *do* have largely untapped creative abilities (SN: 4/23/77, p. 268; 4/30/77, p. 284), and if "Creativity — The Human Resource" helps make more aware of these hidden talents it will have provided a much-needed service. □