operated numerous blimps during World War II and continued research and development afterward. On 26 June 1961, the Navy ordered termination of the blimp program.

Vaeth's statement, "The airship's energy needs are accordingly low," would appear from available evidence to be incorrect. Resistance to forward motion through air is primarily produced by frontal area and airspeed. As a consequence, the great airships were and still are long on frontal area and short on speed.

The Goodyear Tire & Rubber Co. has been building and flying blimps for 48 years (*1*). They currently operate four. They follow each of these with at least one support truck and one bus to transport 15 or so ground-support crew. I suggest that parties interested in lighter-than-air vehicles as a competitive mode of transportation contact Goodyear before investing much time or money.

What appeared to be a good idea in Count von Zeppelin's day is still not economically feasible.

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The Creative Process

Although there are different perceptions of creativity, few are so pessimistic as those reported by Thomas H. Maugh II (Research News, 21 June, p. 1273). I would like to respond to several points.

It *is* possible "to create conditions that nurture preexisting creativity." Teachers at all levels are daily encouraging inquiry, challenging students to expand their intellectual horizons, and reducing the psychological barriers to both creativity and learning (*1*).

The ability to generate ideas *can* be altered. Brainstorming, attribute listing, and other divergent and convergent thinking techniques can be taught so that the individual produces more ideas (*2*). Further, I have seen hundreds of my own students increase their facility in idea production as a result of instruction, teacher expectancies, and their own growth in self-confidence. On the other hand, while it is possible to teach the principles of critical thinking, it is more difficult to convince people to practice self-criticism. This requires a state of emotional comfort with oneself that can evolve but cannot be taught.

The observation by Krebs that one must know which questions to ask is important. It implies, however, both the psychological freedom to ask questions and some information on which to base them. Differences in ability and experience affect both factors.

In summary, creative ability lies on a continuum. It can be nourished in an atmosphere of psychological freedom or squelched by rigidity. It exists in many realms other than science and the arts and may be apparent in the youthful student as well as the famed adult.

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References and Notes

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2. Doubters are referred to G. A. Davis, *Psychology of Problem Solving: Theory and Practice* (Basic Books, New York, 1973) for a summary of these techniques.

In his report on the conference to dissect the creative process in science and medicine, Maugh notes the participants' conclusions that "the ability to generate ideas is the innate part of creativity that probably cannot be altered," and that "creative science" cannot be taught in universities.

These comments are similar to those of the sculptor Lee Mach in the credo for her *Collected Works* (*1*). To the question "How does one assess the myriad influences that finally congeal to create a piece of sculpture, a painting, a song . . . is art really educable?" she answers, "Many artists, even those that teach, think not. Many creative achievements have been made by men and women with little if any formal education . . . formal education may tend to smother by the weight of precedent the intuition and initiative of the gifted one. . . . Artists no less than doctors, scientists, and educators need the conceptual foundation upon which to build their special expressive skills . . . education can help or hinder the abilities but cannot produce them."

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