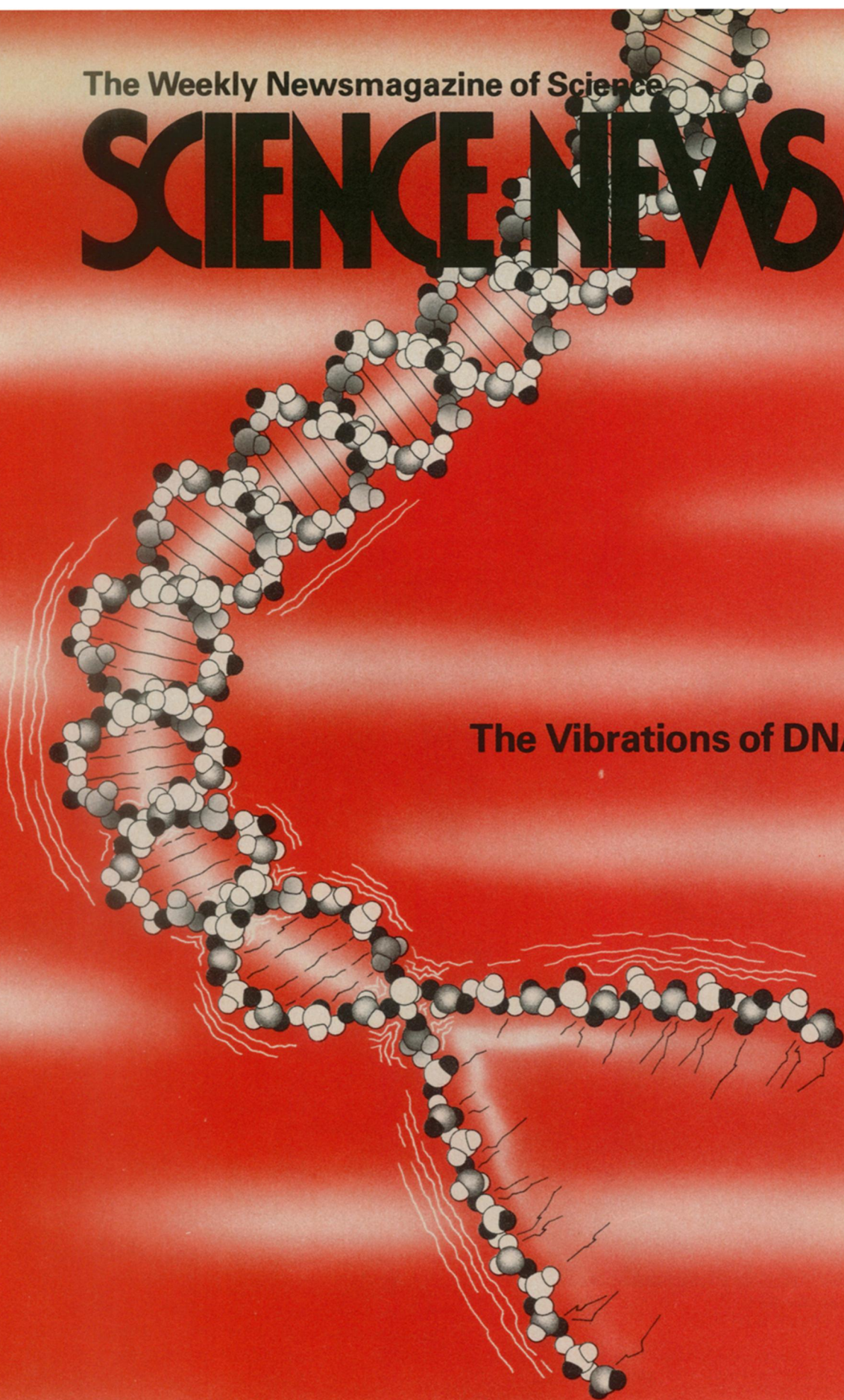


The Weekly Newsmagazine of Science

SCIENCE NEWS

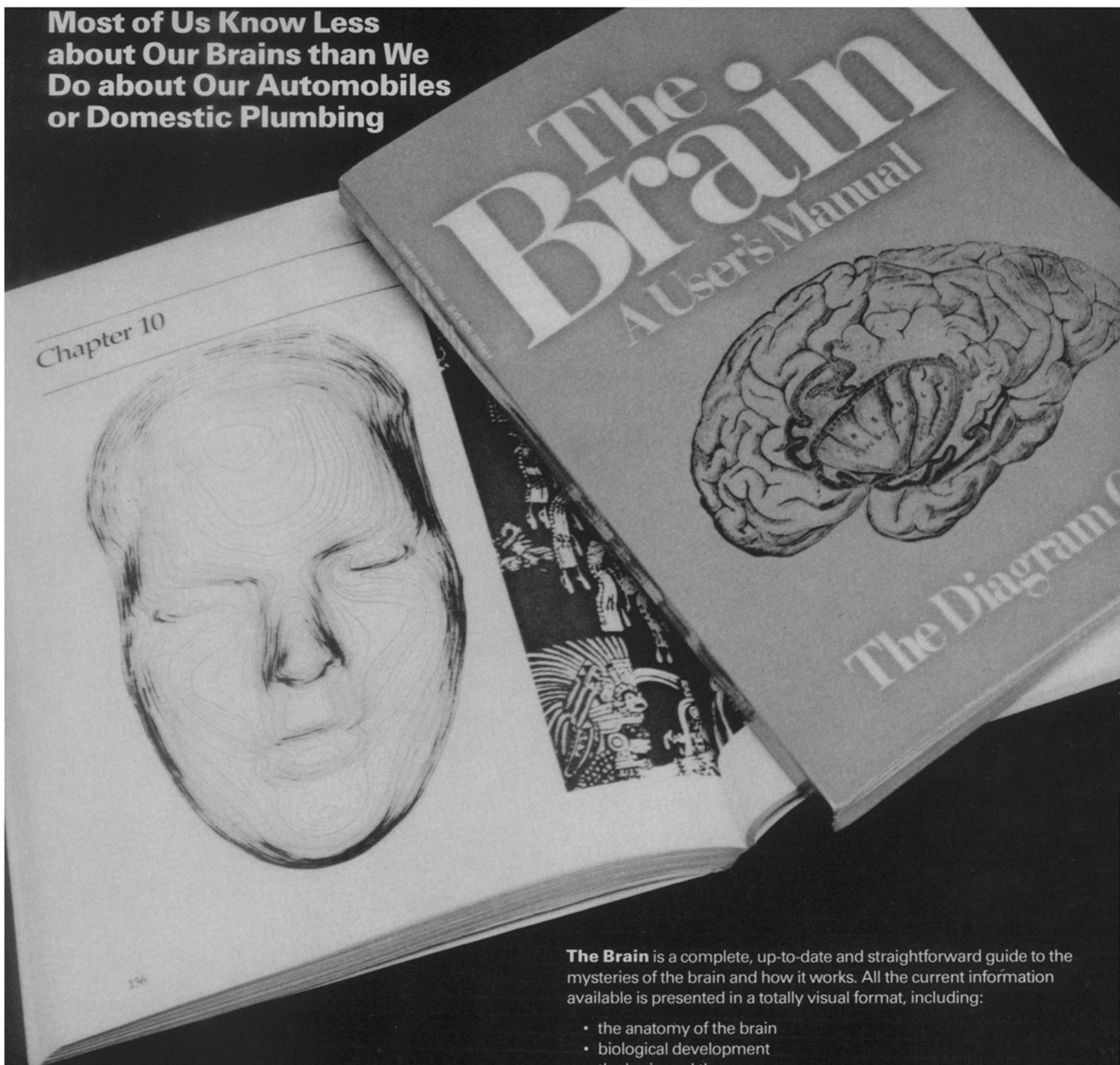
June 9, 1984
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Pages 353-368



The Vibrations of DNA

KEYLER

**Most of Us Know Less
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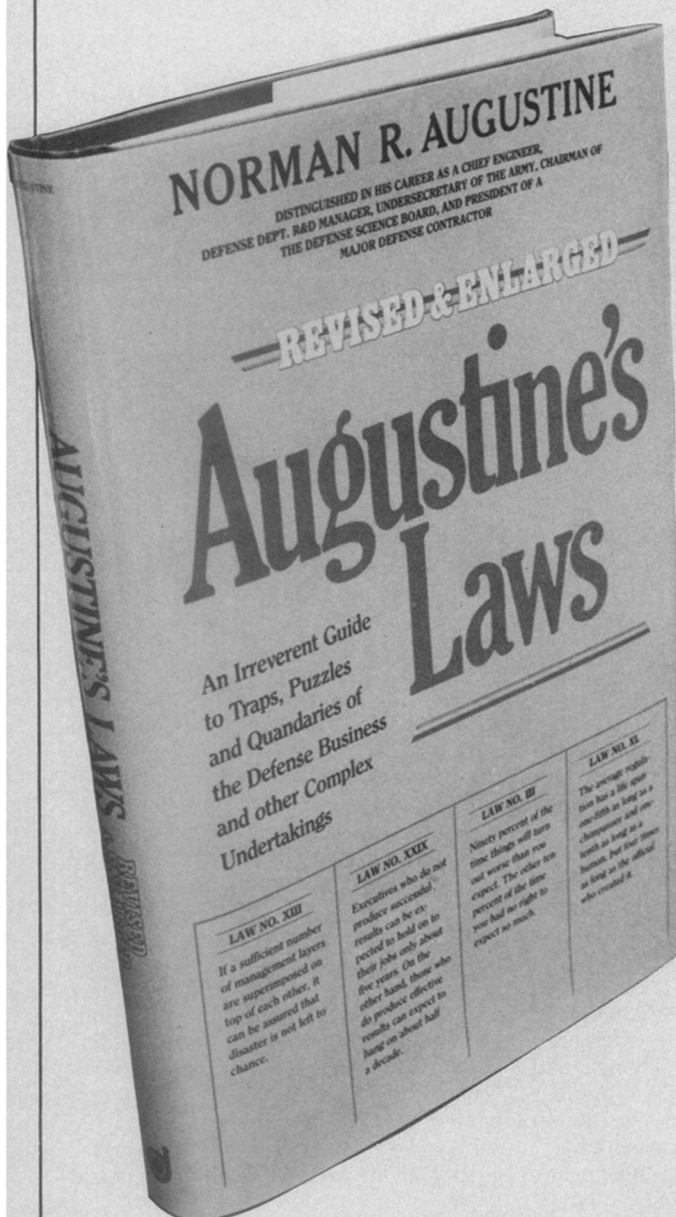
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RB221

OF PLANES AND SHIPS AND BATTLE TANKS AND COST OVERRUNS AND THINGS...

An inquiry into the conduct of large defense R & D projects and into the derivation and application of the laws that govern them.



"One finishes 'Augustine's Laws' alternately chuckling at the author's wit and mentally shivering at the possibility that many of these well-documented laws are true."

— Jerry Bishop, *Wall Street Journal*

American Institute of Aeronautics and Astronautics, 1984, 251 pages, 6¼ x 9¼, hardcover, \$19.97.

Among the most maligned efforts in mankind's checkered history, the large defense research and development project certainly ranks near the top. Norman R. Augustine has experienced such projects from both sides of the fence, i.e., in the Defense Department and the aerospace industry. In "Augustine's Laws," he crystallizes his experience in the never-never land of defense procurement into a series of witty maxims.

For example, Law Number IX, known in some circles as the First Law of Impending Doom, and in other circles as the Final Law of Economic Disarmament, is based on the historical trends of rising unit costs of tactical aircraft. From the days of the Wright Brothers' airplane to the era of modern high-performance fighter aircraft, the cost of the individual aircraft has increased by a factor of four every ten years. This rate of growth seems inherent in such systems, with the unit cost being most closely correlated with the passage of time, rather than with changes in maneuverability, speed, weight, or other technical parameters.

The significance does not lie in the mere fact that cost growth itself is predictable. Rather, it lies in a comparison of the rate of growth of, say, aircraft unit cost with the rate of other seemingly relevant parameters. . . such as the defense budget. And when the trend curves for the national defense budget and the unit cost of tactical aircraft are extended forward into time, the curves intersect. In other words, the cost of an aircraft will, within the not-too-distant future, become equal to the entire defense budget.

This has led to the formulation of Law Number IX, as follows:

In the year 2054, the entire defense budget will purchase just one tactical aircraft. This aircraft will have to be shared by the Air Force and Navy 3½ days each week except for leap year, when it will be made available to the Marines for the extra day.

Although clever and irreverent, the book is more than just a humorous collection. The problems considered are by no means unique to defense programs, and will be recognized to have broad applicability to a variety of fields of endeavor.

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Please send _____ copy(ies) of *Augustine's Laws*. I include a check payable to Science News Book Order Service for \$19.97 plus \$1.00 handling (total \$20.97) for each copy. Domestic orders only.

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RB223