

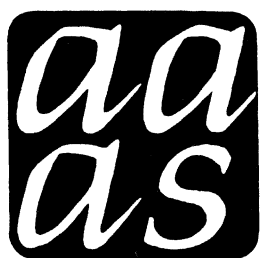
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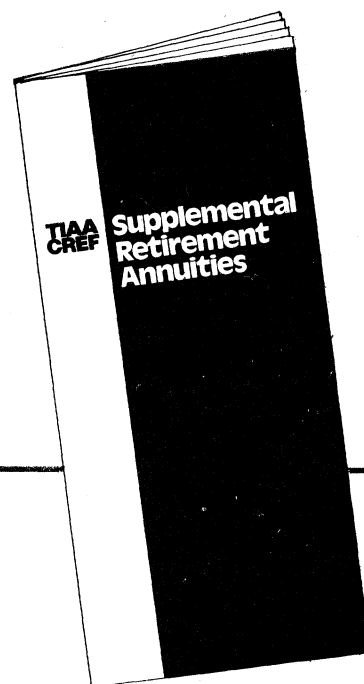
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LETTERS	Significance of Nitrosamines in Animal Diets: <i>G. S. Edwards</i> and <i>J. G. Fox</i> ; Phenacetin Studies: <i>P. Cuatrecasas</i> ; Science and Regulatory Policy: <i>D. L. Davis</i> ; <i>C. L. Comar</i>	6
EDITORIAL	Spectacular Science and Ponderous Process: <i>M. F. Singer</i>	9
ARTICLES	The Early Days of Experimental Neutrino Physics: <i>F. Reines</i>	11
	Echolocation and Pursuit of Prey by Bats: <i>J. A. Simmons</i> et al.	16
	Australian Prehistory: New Aspects of Antiquity: <i>J. P. White</i> and <i>J. F. O'Connell</i>	21
NEWS AND COMMENT	Toxic Substances: EPA and OSHA Are Reluctant Regulators	28
	Study of Terrorism Emerging as an International Endeavor.	33
	OSHA Carcinogen Policy Delayed.	35
RESEARCH NEWS	Mental Disorders: A New Approach to Treatment?	36
	Prospects for Proprietary Synchrotron Radiation Research	37
	The Great Titration Contest.	38
AAAS NEWS	Margaret Mead: An American Phenomenon, 1901-1978: <i>R. Revelle</i> ; AAAS Socio-Psychological Prize; San Francisco Meeting in 1980; Asian Regional Seminar Held in New Delhi; Annual Meeting Notes	39
BOOK REVIEWS	Science in Culture, reviewed by <i>A. Thackray</i> ; Chemists by Profession, <i>J. W. Servos</i> ; Structure and Properties of Nearby Galaxies and The Large Scale Structure of the Universe, <i>V. Rubin</i> ; The Origin of the Solar System, <i>S. J. Weidenschilling</i> ; Avian Breeding Cycles, <i>R. E. Ricklefs</i>	41

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REPORTS	Viking Bistatic Radar Observations of the Hellas Basin on Mars: Preliminary Results: <i>R. A. Simpson et al.</i>	45
	Coral Reef Growth in the Galápagos: Limitation by Sea Urchins: <i>P. W. Glynn, G. M. Wellington, C. Birkeland</i>	47
	Pyrite: Its Rapid Formation in a Salt Marsh and Its Importance in Ecosystem Metabolism: <i>R. W. Howarth</i>	49
	Diphytanyl and Dibiphytanyl Glycerol Ether Lipids of Methanogenic Archaeobacteria: <i>T. G. Tornabene and T. A. Langworthy</i>	51
	Ethanol Ingestion: Differences in Blood Acetaldehyde Concentrations in Relatives of Alcoholics and Controls: <i>M. A. Schuckit and V. Rayes</i>	54
	<i>N</i> -Acetyl Gramicidin: Single-Channel Properties and Implications for Channel Structure: <i>G. Szabo and D. W. Urry</i>	55
	Irradiance Modulation Used to Examine Sound-Radiating Cuticular Motion in Insects: <i>W. M. Masters</i>	57
	Synaptic Phosphoproteins: Specific Changes After Repetitive Stimulation of the Hippocampal Slice: <i>M. Browning et al.</i>	60
	Catechol- <i>O</i> -Methyltransferase: Thermolabile Enzyme in Erythrocytes of Subjects Homozygous for Allele for Low Activity: <i>P. D. Scanlon, F. A. Raymond, R. M. Weinshilboum</i>	63
	Octopamine Receptors, Adenosine 3',5'-Monophosphate, and Neural Control of Firefly Flashing: <i>J. A. Nathanson</i>	65
	Cholecystokinin in the Brains of Obese and Nonobese Mice: <i>E. Straus and R. S. Yalow</i>	68
	Target Range-Sensitive Neurons in the Auditory Cortex of the Mustache Bat: <i>W. E. O'Neill and N. Suga</i>	69
	Reducing Epileptic Seizures Through Operant Conditioning of Central Nervous System Activity: Procedural Variables: <i>A. Cott, R. P. Pavloski, A. H. Black</i>	73
	Plasticity: The Mirror of Experience: <i>D. N. Spinelli and F. E. Jensen</i>	75
	Membrane Glycolipids: Regional Synthesis and Axonal Transport in a Single Identified Neuron of <i>Aplysia californica</i> : <i>A. A. Sherbany, R. T. Ambron, J. H. Schwartz</i>	78
	<i>Technical Comments: Factors in Summer Ozone Production in the San Francisco Air Basin: J. J. Bufalini; P. R. Miller, J. N. Pitts, Jr., A. M. Winer; J. S. Sandberg, M. J. Basso, B. A. Okin</i>	81

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COVER

Slate-pencil sea urchin, *Eucidaris thouarsii* (Val.), perched on the reef-building coral *Pocillopora damicornis* (L.). In Panama, the urchin grazes on the coral only if deprived (for several weeks) of coralline algae and other preferred prey. See page 47. [G. M. Wellington, University of California, Santa Barbara]

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Spectacular Science and Ponderous Process

Since 1973 substantial effort has been made to deal prudently with the concern that recombinant DNA experiments might prove hazardous. Unprecedented restriction of experiments was asked of a community bred for independence of mind and spirit. Despite widespread skepticism that hazards actually existed, the effort to minimize risk was a remarkable success, primarily because of the respect accorded to those scientists who called for prudence and later to the National Institutes of Health (NIH) as a scientific institution. To produce standards of laboratory safety, NIH formed the Recombinant DNA Advisory Committee (RAC) made up of prominent scientists, who developed the Guidelines for recombinant DNA research published by NIH in June 1976. Under the Guidelines work has proceeded safely and research accomplishments have been spectacular.

The confidence of the scientific community in the wisdom behind these efforts is rapidly eroding. Responsibility for the erosion lies with the Secretary of Health, Education, and Welfare (HEW) and his staff, who have now assumed direct supervision of recombinant DNA policy-making, and who have adopted procedures unsuitable to the complex problem of controlling creative activities. Two developments that have already had unnecessary adverse consequences are particularly disturbing.

First, there has been a long delay in promulgating amply justified revisions of the Guidelines. These were produced in July 1978 by NIH and its advisory committees, who gave unprecedented attention to comment by the scientific and general public and produced a document with broad support. Yet HEW imposed still another round of review; assurances that it would be expeditious proved empty. Experiments critical for realizing the practical and intellectual promise of recombinant DNA and for making risk assessments have been held up for months.

Second, the authority to appoint RAC members has been transferred from NIH to HEW. Contradicting its own definition of good process, HEW considered new members without adequately consulting the scientific public and in disregard of much of NIH's advice. In response to NIH urging and intervention by an alerted community, the most misguided inclinations were finally corrected. These had included questioning the qualifications of an eminent molecular biologist, himself one of the first to call for caution; questioning the independence of NIH scientists serving as RAC members; and consideration of individuals known to be intractably opposed to the research. Nevertheless, the insensitivity of HEW to vital issues is still apparent in the makeup of the new RAC. The RAC's job will be to advise the director of NIH on highly technical matters. The revised Guidelines require that 20 percent of its members be nonscientists and that major actions be published for comment before adoption. This should have been sufficient to protect the public interest and still allow for the expertise required to deal with scientific matters. But under recent proposals the new RAC (about 25 members) will have seven to nine (depending on how one counts) nonscientists and only token representation in the molecular biology of eukaryotes. In the absence of adequate expertise in relevant areas and with a lack of sufficient distinguished scientific leadership, it will be difficult for the reconstituted RAC to win respect for the Guidelines.

Lincoln Kirstein wrote, "Despite the populist politicians, certain crafts must live by elitist criteria."* He included science as one of those crafts. When an egalitarian and humane society decides to support such a craft, public officials have the delicate task of nurturing elitist criteria while protecting the general interest. In the present case the two are interdependent, since safety depends on the diligence and therefore the confidence of individual investigators. Neither scientific criteria nor the public interest has been well served by HEW's actions.—MAXINE F. SINGER

**New York Review of Books*, 23 November 1978.

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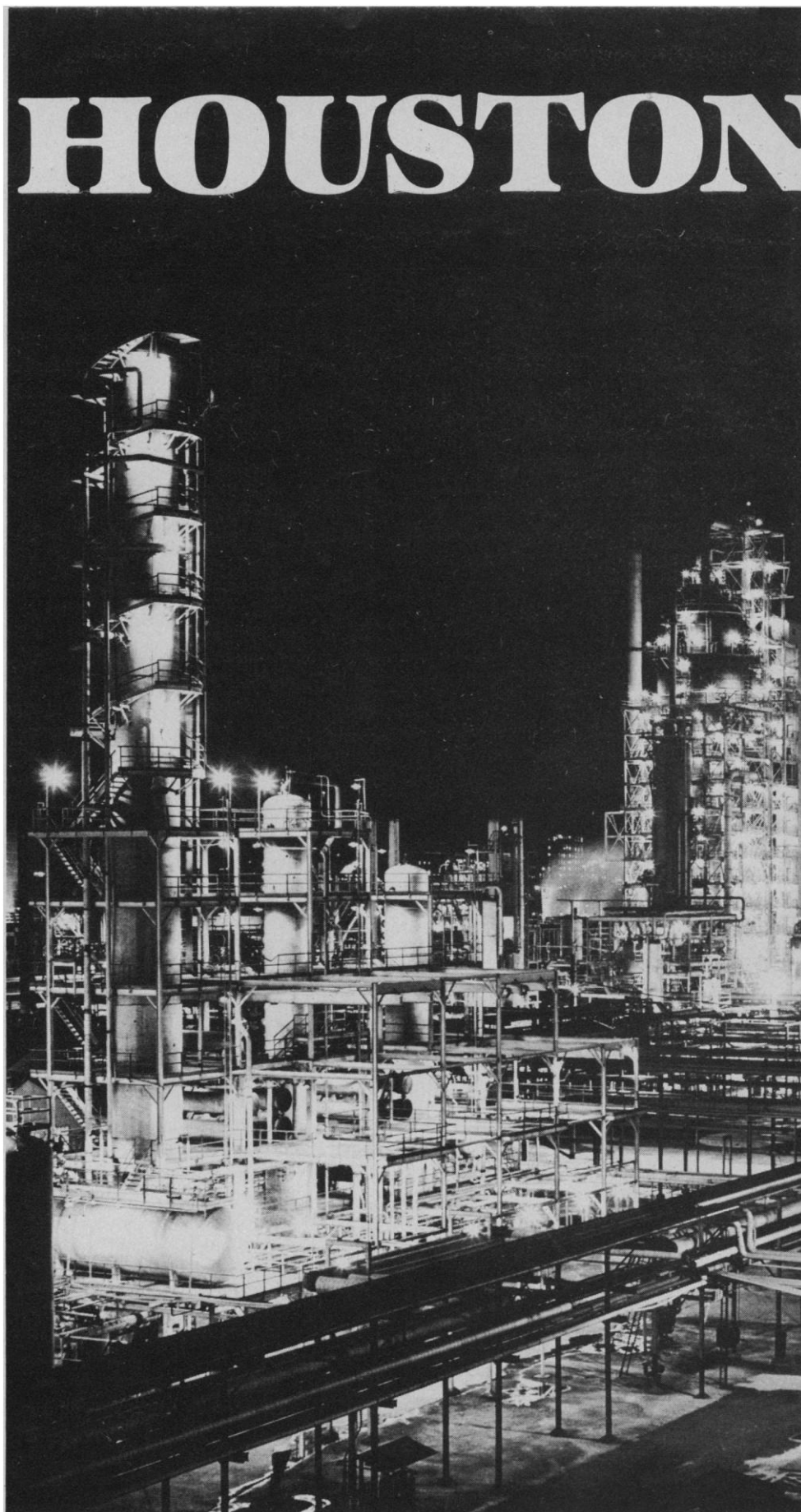


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