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30 July 1976

Volume 193, No. 4251

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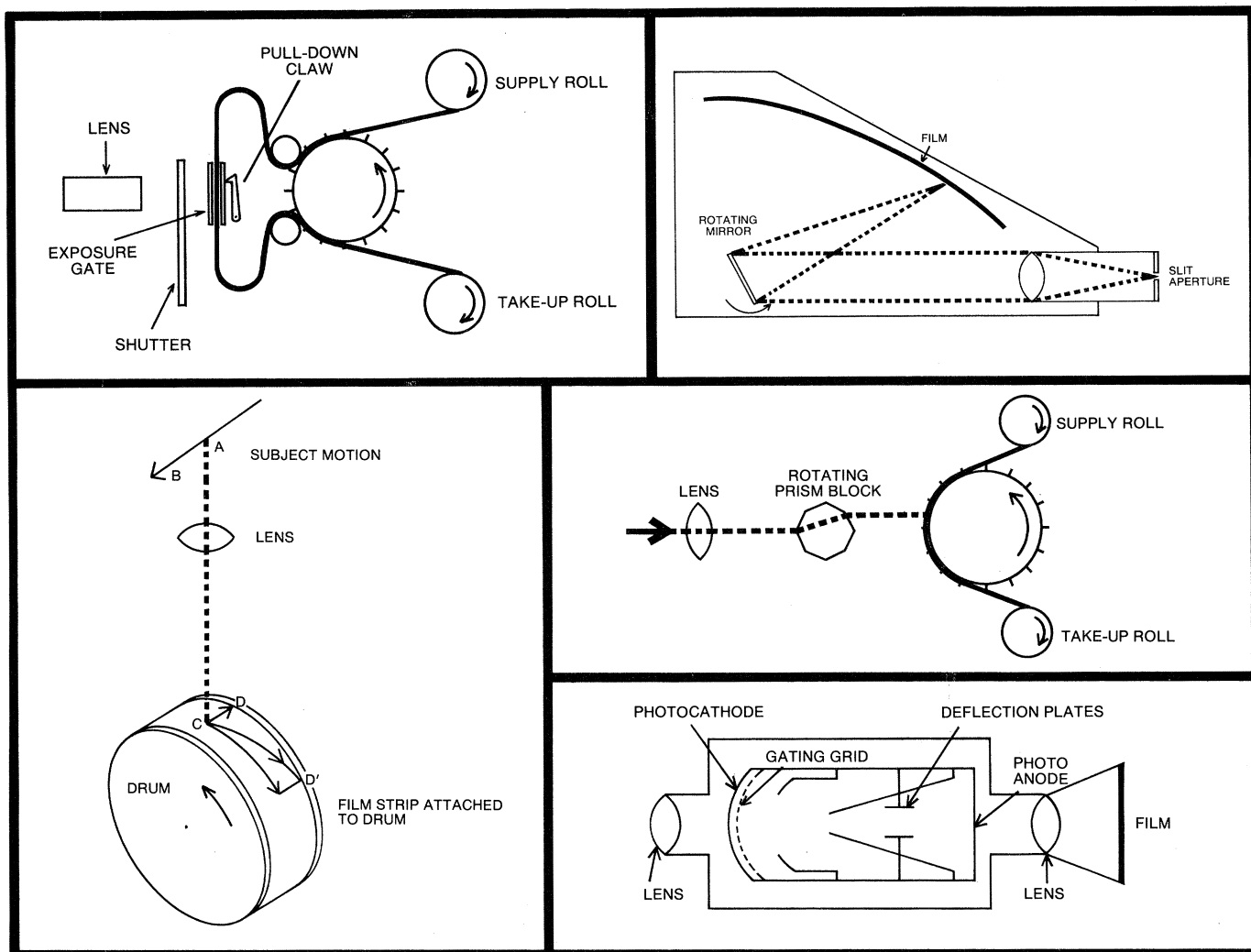


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# SCIENCE

<b>LETTERS</b>	Demographic Data on the Elderly: <i>G. C. Myers</i> ; Freedom of Information and NSF: <i>F. J. Munger</i> . . . . .	358
<b>EDITORIAL</b>	Scientists' Meetings: Collegial versus Positional: <i>A. Etzioni</i> . . . . .	361
<b>ARTICLES</b>	Precambrian Geologic History: <i>R. B. Hargraves</i> . . . . .	363
	Trophic Regulation of Nerve Sprouting: <i>J. Diamond</i> et al. . . . .	371
	Background for the Spheroidal Nuclear Model Proposal: <i>J. Rainwater</i> . . . . .	378
<b>NEWS AND COMMENT</b>	Federal Vaccine Agency: Critic Fired After Bitter Conflict . . . . .	384
	Venoms: Extracting Healing from the Serpent's Tooth . . . . .	385
	Nuclear Exports and Proliferation: The French Think They Have a Case . . . . .	387
	Hospices: For the Dying, Relief from Pain and Fear . . . . .	389
<b>RESEARCH NEWS</b>	Jumping Genes: A Common Occurrence in Cells . . . . .	392
<b>BOOK REVIEWS</b>	The Cradle of the East, reviewed by <i>R. Pearson</i> ; Fiddler Crabs of the World, <i>B. Hazlett</i> ; Dynamical Properties of Solids, <i>L. M. Falicov</i> ; Persons at High Risk of Cancer, <i>C. White</i> ; Books Received . . . . .	395

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<b>REPORTS</b>	Nuclear Ghosts: A Nonmembranous Structural Component of Mammalian Cell Nuclei: <i>J. M. Keller and D. E. Riley</i> . . . . .	399
	Interkingdom Fusion Between Human (HeLa) Cells and Tobacco Hybrid (GGLL) Protoplasts: <i>C. W. Jones et al.</i> . . . . .	401
	Thyrotropin Releasing Hormone: Development of Inactivation System During Maturation of the Rat: <i>J. T. Neary et al.</i> . . . . .	403
	Mg <sup>2+</sup> , Ca <sup>2+</sup> -Dependent Adenosine Triphosphatase as Receptor for Divalent Cations in Bacterial Sensing: <i>R. S. Zukin and D. E. Koshland, Jr.</i> . . . . .	405
	Phosphoribosylpyrophosphate Synthetase Is Elevated in Fibroblasts from Patients with the Lesch-Nyhan Syndrome: <i>D. W. Martin, Jr., and B. A. Maler</i> . . . . .	408
	Northern Fur Seal Diving Behavior: A New Approach to Its Study: <i>G. L. Kooyman, R. L. Gentry, D. L. Urquhart</i> . . . . .	411
	Insulin Binding to Cultured Human Fibroblasts Increases with Normal and Precocious Aging: <i>A. L. Rosenbloom, S. Goldstein, C. C. Yip</i> . . . . .	412
	Streptozotocin-Induced Pancreatic Insulinitis: New Model of Diabetes Mellitus: <i>A. A. Like and A. A. Rossini</i> . . . . .	415
	Alternative Transformation Behavior in Sulfides: Direct Observations by Transmission Electron Microscopy: <i>A. Putnis</i> . . . . .	417
	Postmating Female Odor in <i>Heliconius</i> Butterflies: A Male-Contributed Antiaphrodisiac?: <i>L. E. Gilbert</i> . . . . .	419
	Trajectory of the Mt. St. Augustine 1976 Eruption Ash Cloud: <i>A. B. Meinel, M. P. Meinel, G. E. Shaw</i> . . . . .	420
	Suckling in Newborn Rats: Eliminated by Nipple Lavage, Reinstated by Pup Saliva: <i>M. H. Teicher and E. M. Blass</i> . . . . .	422
	Sex and the Single Hemisphere: Specialization of the Right Hemisphere for Spatial Processing: <i>S. F. Witelson</i> . . . . .	425
	Susceptibility of Mice to Audiogenic Seizures Is Increased by Handling Their Dams During Gestation: <i>S. L. Beck and D. L. Gavin</i> . . . . .	427
	Technical Comments: Reticulocyte Transfer RNA and Hemoglobin Synthesis: <i>M. Litt; D. W. E. Smith</i> . . . . .	428

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Multiple fusion aggregate showing two small dark tobacco nuclei (the "eyes"), a superimposed HeLa cell (one "ear"), and two HeLa nuclei with the cell membrane apparently continuous with the protoplast membrane and no visible intervening membranes (about  $\times 4440$ ). See page 401. [William Marin, Jr., Brookhaven National Laboratory, Upton, Long Island, New York]

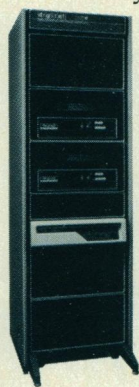
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## Scientists' Meetings: Collegial versus Positional

From Airline House to Asilomar, from Arden House to Aspen, scientists are participating in workshops, conferences, and meetings. Yet often, as these gatherings draw to a close, one has the impression that many in attendance question whether the time taken away from their principal pursuits was really worth it. If scientists are "convoking more but enjoying it less" the reasons may run deeper than the oft-cited "distractions" of out-of-town conferences (jet lag, touristic lures, free and freely flowing libations, too much socializing). One such deeper problem may be the all-too-frequent mismatch between a meeting's intended function and its format.

Most scientific meetings are intended to serve one of two functions: either exchange of research findings and techniques or formulation of a collective position on matters regarding public policy (for example, the safety of nuclear reactors), ethical guidelines (should certain lines of experiments in genetics be voluntarily suspended?), or the interests of the scientific community (should there be a separate office for a scientific adviser to the President?). Thus, meetings are essentially either *collegial* (in the tradition of the Royal Society and the annual conventions of the AAAS) or *positional* (that is, attempting to evolve a position those assembled, or those they represent, can come to share).

Trouble arises where sociological formats developed for and suited to collegial meetings are carried over to positional ones. Thus, a collegial meeting can thrive on scores of presentations, delivered in numerous simultaneous sessions of which scientists attend some or none, with relatively little time set aside for group dialogue. To reach a group position and evolve the consensus to back it up, however, a quite different structure is needed, one entailing relatively few presentations and much room for dialogue, few or no simultaneous sessions (or only in the first part of the gathering), and as full participation as possible.

Collegial meetings can do quite well with what social psychologists call *laissez-faire* leadership (which actually means no leader at all but a passive chairperson). In contrast, positional meetings tend to require one or more active chairpersons, whose role it is to keep the dialogue on the track by cutting off excessive side trips, summarize whatever consensus emerges, clarify remaining points of difference, and urge progress toward a resolution.

In the selection of participants, a collegial meeting can be relatively non-selective, allowing scientists spanning a wide range in outlook, status, and temperament all to have their day in the free-for-all of findings and hypotheses. In contrast, positional meetings work best if participants are invited who represent at least the main relevant alternative viewpoints but are also willing and able to have a true dialogue with each other and make an effort to join in the collective enterprise of reaching a group or community position.

There is no room for concern if many, even most, scientific meetings are of the collegial type. But when the intent is positional and the format collegial, the result is likely to be a frustration of purpose that will tend to generate disappointed participants and more heat than light.—AMITAI ETZIONI, *Columbia University, New York 10027, and Center for Policy Research, Inc., 475 Riverside Drive, New York 10027*



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**AN INTRODUCTION TO BIO-INORGANIC CHEMISTRY** edited by David R. Williams, *The Univ. of St. Andrews, St. Andrews, Scotland*. (23 Contributors) Sections of this book describe the three natural divisions of the field: general principles of bio-inorganic chemistry, experimental methods used to produce the facts that gave rise to these principles, and application of these principles to medicine. '76, 416 pp. (6 3/4 x 9 3/4), 341 il., 62 tables, \$24.50

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**Mathematics.** Models of the Real World. Peter Lancaster. Prentice-Hall, Englewood Cliffs, N.J., 1976. xii, 164 pp., illus. \$9.95.

**Moral Problems in Medicine.** Samuel Gorvitz and six others, Eds. Prentice-Hall, Englewood Cliffs, N.J., 1976. xxiv, 552 pp. \$11.50.

**Neoplasia in the Central Nervous System.** Papers from a symposium, Phoenix, Jan. 1975. Richard A. Thompson and John R. Green, Eds. Raven, New York, 1976. xii, 382 pp., illus. \$29.50. Advances in Neurology, vol. 15.

**The Neville Site.** 8,000 Years at Amoskeag. Manchester, New Hampshire. Dena Ferran Dincauze. Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, Mass., 1976. x, 150 pp., illus. Paper, \$10. Peabody Museum Monographs, No. 4.

**New Towns.** Another Way to Live. Carlos C. Campbell. Reston (Prentice-Hall), Reston, Va., 1976. xviii, 284 pp., illus. \$12.50.

**The New World Primates.** Adaptive Radiation and the Evolution of Social Behavior, Languages, and Intelligence. Martin Moynihan. Princeton University Press, Princeton, N.J., 1976. x, 264 pp., illus. \$12.50.

**NMR in Biological Research.** Peptides and Proteins. Kurt Wüthrich. North-Holland, Amsterdam, and Elsevier, New York, 1976. xii, 380 pp., illus. \$45.95.

**North Star to Southern Cross.** Will Kyselka and Ray Lanterman. University Press of Hawaii, Honolulu, 1976. viii, 152 pp., illus. Cloth, \$8.95; paper, \$3.95.

**Physics for People Who Think They Don't Like Physics.** Jerry S. Faugh and Karl F. Kuhn. Saunders, Philadelphia, 1976. xvi, 570 pp., illus. \$14.95.

**Physikalisches Taschenbuch.** Hermann Ebert, Ed. Vieweg, Braunschweig, Germany, ed. 5, 1976. vi, 618 pp. + chart. DM 64.

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**Selected Papers of Great American Physicists.** The Bicentennial Commemorative Volume of the American Physical Society. Spencer R. Weart, Ed. American Institute of Physics, New York, 1976. 176 pp., illus. \$3.50.

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H. Kimberlin, Ed. North-Holland, Amsterdam, and Elsevier, New York, 1976. xvi, 404 pp., illus. \$49.95. Frontiers of Biology, vol. 44.

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**Standardized Testing in the Schools.** Uses and Roles. James L. Wardrop. Brooks/Cole, Monterey, Calif., 1976. xii, 130 pp. Paper, \$3.95.

**Structural Engineering.** Vol. 1, Introduction to Design Concepts and Analysis. Richard N. White, Peter Gergely, and Robert G. Sexsmith. Wiley, New York, ed. 2, 1976. xx, 316 pp., illus. \$12.95.

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**Understanding Chemistry.** Robert J. Ouellette. Harper and Row, New York, 1976. xvi, 442 pp., illus. \$11.95.

**Urban Health in America.** Amasa B. Ford. Oxford University Press, New York, 1976. x, 294 pp., illus. Cloth, \$10.95; paper, \$5.95.