

stantiating proof of its outstanding performance, or write Dept. 21141, The Nalge Co., Inc., Rochester, New York 14602.



1066

ing. To achieve such a condition, Vicos needs to continue its educational and economic development, perhaps at the expense of immediate consumption in the form of health improvements. It cannot be done if the number of people increases so swiftly as to compromise their educational and economic means to political power, according to Alers.

H. F. Dobyns (Cornell) maintained that enlightenment and skill are strategic components of power. He characterized the traditional Andean manor as a social system permitting the overlord to monopolize enlightenment in order to maintain the traditional exploitation of Indian serfs; serfs were excluded from the enlightenment process. Dobyns labeled the Cornell Peru Project intervention a systematic diffusion of knowledge of many kinds by various techniques of formal and informal instruction. He emphasized numerous new power domains that have resulted in Vicos from the enlightenment of its people. Literate schoolboys serving as field-labor time-keepers for nonliterate community council delegates have acquired considerably more power than was ever before available to persons of their age in Vicos. Literate sons have also acquired much power within their families, particularly with regard to commercial and economic relations with Spanish-speaking mestizos; their increased authority shows that the traditional authority of elders in this society has been a function of slow but cumulative enlightenment rather than of aging per se. For the first time, Dobyns continued, educated Vicos boys and girls have established power domains over children of other families in zones other than their own as public school teachers. The Vicos data demonstrate that rapid social change is possible when it substitutes gratification for deprivation.

In the light of the Vicos experience, H. D. Lasswell (Yale) pointed to the importance of creating policy scientists trained to bring their basic disciplinary training to bear upon practical policy problems. He commented upon the significance of the contextual approach to problem-solving on the part of the director of the Cornell Peru Project and the pertinence of this method for national development. Using Vicos as a springboard, Lasswell outlined a generalized model for value shaping and sharing as it contributed to inducing initiatives and accelerating development. Finally, he discussed induced initiative as a national development strategy.

In closing the session, Lasswell stressed the contribution of the Vicos project to the policy-science technique of prototyping, which he distinguished from experimentation: although the papers were couched in terms of valuecategory analysis, their general tenor was of prototyping.

Allan R. Holmberg Henry F. Dobyns Department of Anthropology, Cornell University, Ithaca, New York 14850

Forthcoming Events

March

1-2. Systems for the Intellectual Organization of Information, seminar, Rutgers Univ., New Brunswick, N.J. (S. Artandi, Graduate School of Library Service, Rutgers Univ., New Brunswick)

1-4. Unmanned Spacecraft, Los Angeles, Calif. (R. D. DeLauer, TRW/Space Technology Laboratories, Norton Air Force Base, San Bernardino, Calif.)

1-5. National Council on the Aging, 14th annual, Washington, D.C. (NCA, 49 W. 45 St., New York, N.Y. 10036)

1-5. Society of **Plastics Engineers**, annual, Boston, Mass. (G. P. Fong, c/o Sweetheart Plastics Inc., Guildware Park, Wilmington, Mass.)

4-5. Physical Basis of Radioisotope Applications, Wantage, England. (C. G. Clayton, U.K. Atomic Energy Authority, Wantage Research Laboratory, Wantage) 4-6. Fundamental Cancer Research, 19th annual symp., Univ. of Texas, Houston. (D. N. Ward, Univ. of Texas Medical

Center, Houston 77025) 4-6. Central **Surgical** Assoc., Milwaukee, Wis. (C. E. Lischer, 457 N. Kingshighway, St. Louis 8. Mo.)

5-6. Congenital Malformations of the Central Nervous System, intern. colloquium, Paris, France. (J. Chevreux, c/o Service de M. le Prof. Leon Michaux, Hôpital de la Salpetrière, Boulevard de l'Hôpital, Paris¹³⁶)

5-7. American Assoc. of **Pathologists** and **Bacteriologists**, Philadelphia, Pa. (M. I. O'Connor, Williams and Wilkins Co., 428 E. Preston St., Baltimore, Md. 21202) 5-7. National **Wildlife** Federation, 29th annual, Washington, D.C. (T. L. Kimball, 1412 16th St., NW, Washington, D.C.) 7-10. International Acad. of **Pathology**, 54th annual, Philadelphia, Pa. (F. K. Mostofi, Armed Forces Inst. of Pathology, Washington, D.C.)

7-10. Mineralogical Assoc. of Canada, 10th annual, Toronto, Ontario. (J. A. Mandarino, Dept. of Mineralogy, Rolay Ontario Museum, 100 Queen's Park, Toronto 5).

8–9. High Speed Testing, intern. symp., Boston, Mass. (R. H. Supnik, Plas-Tech Equipment Corp., 4 Mercer Rd., Natick, Mass.)

8-10. Calibration, intern. conf., Leipzig, Germany. (Kammer der Technik, Ebertstr. 27, Berlin W.8)

SCIENCE, VOL. 147

8-10. Marine Systems, conf., American Inst. of Aeronautics and Astronautics/U.S. Navy, San Diego, Calif. (AIAA, 1290 Sixth Ave., New York, N.Y. 10019)

8-10. Society of **Toxicology**, annual, Williamsburg, Va. (C. S. Weil, Mellon Inst., 4400 Fifth Ave., Pittsburgh, Pa. 15213) 8-11. American College of **Surgeons**,

clinical congr., Seattle, Washington. (S. P. Harbison, 55 E. Erie St., Chicago, Ill.) 8-12. American Soc. of Civil Engineers,

8-12. American Soc. of **Civil Engineers**, Mobile, Ala. (W. H. Wisely, ASCE, 345 E. 47 St., New York, N.Y. 10017)

8-12. Personnel Dosimetry for Accidental High Level Exposure to External and Internal Radiation, symp., Vienna, Austria. (J. H. Kane, International Conferences Branch, Div. of Special Projects, U.S. Atomic Energy Commission, Washington, D.C. 20545)

9-10. Arms Control, first West Coast conf., Los Angeles, Calif. (R. D. DeLauer, TRW Space Technology Laboratories, Redondo Beach, Calif.)

9-11. Wildlife Management Inst., Las Vegas, Nev. (C. R. Gutermuth, 709 Wire Bldg., Washington, D.C.)

10-12. Particle Accelerator, conf., Washington, D.C. (R. S. Livingston, Oak Ridge Natl. Laboratory, P.O. Box X, Oak Ridge, Tenn.)

13. Experimental Basis for the Current Management of **Portal Hypertension**, Philadelphia, Pa. (B. Sigel, Woman's Medical College of Pennsylvania, 3300 Henry Ave., Philadelphia 19129)

13-18. **Proctology**, 17th annual teaching seminar, New Orleans, La. (A. J. Cantor, 147-41 Stanford Ave., Flushing, L.I., N.Y. 11355)

14-16. Society for the Study of **Development and Growth**, southeastern regional, Univ. of Georgia, Athens. (D. T. Lindsay, Dept. of Zoology, Univ. of Georgia, Athens 30601)

15-17. Plant Protection, 2nd intern. conf., Naples, Italy. (Intern. Anti-Parasitic Centre, Via Barberini, 86, Rome, Italy)

15-17. Solar Energy Soc., intern. symp., Phoenix, Ariz. (SES, Arizona State Univ., Tempe 85281)

17-19. Instrumentation in the Iron and Steel Industry, 15th natl. conf., Pittsburgh, Pa. (R. P. Trauterman, Allegheny-Ludlum Steel Corp. Research Center, Alabama Ave., Backenridge, Pa.) 17-20. Medical Schools and Teaching

17-20. Medical Schools and Teaching Hospitals: Curriculum, Programming and Planning, New York Acad. of Sciences, New York, N.Y. (NYAS, 2 E. 63 St., New York 10021)

17-20. American **Orthopsychiatric** Assoc., New York, N.Y. (E. Harrison, 477 FDR Drive, New York, N.Y.)

18. American Vacuum Soc., midwestern section, Houston, Tex. (J. H. Kimzey, Manned Spacecraft Center, 2101 Webster-Seabrook Rd., Houston 77058)

18-19. Zinc Metabolism, symp., Detroit, Mich. (A. S. Prasad, School of Medicine, Wayne State Univ., Detroit 48207)

18-20. Michigan Acad. of Science, Arts, and Letters, Univ. of Michigan, Ann Arbor. (I. J. Cantrall, Museum of Zoology, Univ. of Michigan, Ann Arbor)

19–20. New York Microscopical Soc., biennial symp., New York, N.Y. (T. G. Rochow, American Cyanamid Co., Room 467A, Stamford, Conn. 06904)

26 FEBRUARY 1965

Why a Coulachron Analyzer?

SPEED:	30 seconds or less for each analysis
SAMPLES:	in microliters
ANALYSES:	more than 120 different ions and compounds
STANDARDS:	seldom required
READOUT:	digital, in microequivalents
ACCURACY:	for most analyses, better than 0.5%

a new instrument that provides fast, easy, economical analysis . . . automatically



CLINICAL UNIT



RESEARCH PANEL

With a remarkable new instrument, the Coulachron, you can now titrate for more than 120 different ions and compounds—in seconds—without standard solutions—using micro samples—**automatically!** The Coulachron generates its own titrants, titrates to any selected potentiometric or amperometric end point, and reads out directly in microequivalents on a digital counter.

The basic Coulachron features the simplicity of plug-in programming for specific analyses. In addition, the separate Research Panel substitutes for the program plugs to let you adjust each variable independently. With the Panel, you can develop your own analyses, modify standard procedures, follow titrations on indicating meters and measure electrode voltages.

You can do all kinds of oxidation-reduction, precipitation and complex-formation titrations with the Coulachron and Research Panel. Generate titrants or add them from external burettes, as you choose. Most analyses take less than 30 seconds, require only microliters of sample, need no calibration standards, and are accuracy-limited only by your sample pipetting technique.

Get the full facts on automating your analytical procedures with the Coulachron. Write:



1067