surrounding each animal. This delicate interplay between the organism, microenvironment, and macroenvironment was also shown to affect differentiation in other organisms. The second paper reported apparent rhythmicities of sexual differentiation and stressed the possible role of intrinsic as well as extrinsic factors in controlling these developmental phenomena.

During the last day of the symposium papers were presented on regeneration and budding. It seemed especially fitting that such papers should be given because hydra were the first animals in which these two processes were studied. The symposium reports emphasized a chemical approach to these problems. One line of attack involved study of the effects of chemical agents on regeneration. Interestingly, it was proposed that the vitamin lipoic acid exerts its inhibitory effects on regeneration by inhibiting DPN-malic dehydrogenase. Next, the control of regeneration, growth, and cell migration were discussed in relation to postulated growth-stimulating and growth-inhibiting factors. Finally, the finding of a high DNA to protein ratio in buds as compared to the parent hydra was discussed in relation to cell growth.

One of the most refreshing aspects of this meeting was the *espirit de corps* generated among all those who took part. The participants were as follows: P. Broberg, R. Bryden, A. Burnett, G. Chapman, D. Claybrook, S. Crowell, R. Eakin, D. Fawcett, C. Fulton, G. Gauthier, T. Goreau, C. Hand, A. Hess, E. Kline, C. Lane, H. Lenhoff, Y. Li, W. Loomis, P. Lunger, C. Lytle, G. Mackie, E. Martin, L. Muscatine, E. Palincsar, H. Park, L. Passano, J. Phillips, D. Ross, D. Slautterback, D. Spangenberg, B. Strehler, S. Wainwright, E. Wangersky, J. Welsh, and R. Wood.

The proceedings and discussions of the symposium are being published by the University of Miami Press.

Forthcoming Events

December

26–31. American Assoc. for the Advancement of Science, annual, Denver, Colo. (R. L. Taylor, AAAS, 1515 Massachusetts Ave., NW, Washington 5)

The following 45 meetings are being held in conjunction with the AAAS annual meeting.

AAAS Cooperative Committee on the Teaching of Science and Mathematics (J. R. Mayor, AAAS, 1515 Massachusetts Ave., NW, Washington, D.C.). 27 Dec.

AAAS Southwestern and Rocky Mountain Div. (M. G. Anderson, New Mexico State Univ., University Park). 26–30 Dec.

Academy Conf. (J. G. Arnold, Jr., Loyola Univ., New Orleans, La.). 27–28 Dec.

Alpha Epsilon Delta (N. F. Witt, Univ. of Colorado, Boulder). 28–29 Dec.

American Astronautical Soc. (M. Pitkin, Martin-Denver Co., Denver, Colo.). 28–29 Dec.

American Astronomical Soc. (H. J. Smith, Yale Observatory, 135 Prospect St., New Haven, Conn.). 26–30 Dec.

American Economic Assoc. (K. E. Boulding, Univ. of Michigan, Ann Arbor). 26 Dec.

American Educational Research Assoc. (D. D. Feder, San Francisco State College, San Francisco, Calif.). 30 Dec.

American Nature Study Soc. (S. G. Baldwin, Danville, Ill.). 27–30 Dec.

American Physiological Soc. (R. E. Smith, Univ. of California, Los Angeles). 29 Dec.

American Political Science Assoc. (J. Korbel, Social Science Foundation, Univ. of Denver, Denver, Colo.). 27 Dec.

American Psychiatric Assoc. (D. A. Hamburg, Stanford Medical Center, Palo Alto, Calif.). 27 Dec.

American Soc. of Criminology (G. H. Barker, Dept. of Sociology, Univ. of Colorado, Boulder). 29–30 Dec.

American Soc. of Naturalists (E. W. Caspari, Univ. of Rochester, Rochester, N.Y.). 27 Dec.

American Soc. of Zoologists (R. L. Watterson, Univ. of Illinois, Urbana). 27–30 Dec.

American Sociological Assoc. (C. Taeuber, Bureau of the Census, Washington, D.C.) 29 Dec.

American Statistical Assoc. (J. A. Niederjohn, Ideal Cement Co., Denver, Colo.). 29–30 Dec.

Association of American Geographers (M. J. Loeffler, Univ. of Colorado, Denver). 26–28 Dec.

Association for Computing Machinery (W. F. Cahill, Goddard Space Flight Center, Greenbelt, Md.). 28 Dec.

Beta Beta Beta Biological Soc. (Mrs. F. G. Brooks, Box 515 Ansonia Station, New York 23). 26–27 Dec.

BIO (Biomedical Information-Processing Organization) (R. S. Ledley, Natl. Biomedical Research Foundation, Silver Spring, Md.). 27 Dec.

Biometric Society, WNAR (F. Graybill, Statistical Laboratory, Colorado State Univ., Fort Collins). 28 Dec.

Committee on Desert and Arid Zones Research, Southwestern and Rocky Mountain Div. of AAAS (T. L. Smiley, Univ. of Arizona, Tucson). 30 Dec.

Conference on Scientific Communication (C. D. Leake, Ohio State Univ., Columbus). 30 Dec.

Conference on Scientific Manpower (T. J. Mills, Natl. Science Foundation, Washington, D.C.). 27 Dec.

Ecological Soc. of America (R. S. Miller, Univ. of Saskatchewan, Saskatoon, Canada). 27–29 Dec.

Institute of Management Sciences (M. M. Flood, Mental Health Research Inst., Univ. of Michigan, Ann Arbor). 29 Dec.

Mathematical Assoc. of America, Committee on Undergraduate Program in Mathematics (R. J. Wisner, Michigan State Univ., Oakland, Rochester). 30 Dec.

Metric Assoc. (R. P. Fischelis, 502 Albee Bldg., NW, Washington, D.C.). 27–30 Dec.

National Assoc. of Biology Teachers (Miss M. Beuschlein, Chicago Teachers College, Chicago, Ill.). 27–30 Dec.

National Assoc. for Research in Science Teaching (Miss E. M. Selberg, Colorado State College, Greeley). 27–30 Dec.

National Assoc. of Science Writers (H. B. Nichols, U.S. Geological Survey, Washington, D.C.). 27 Dec.

National Geographic Soc. (R. Gray, National Geographic Soc., Washington, D.C.). 30 Dec.

National Science Teachers Assoc. (Miss M. Gardner, Natl. Science Teachers Assoc., Washington, D.C.). 27–30 Dec.

National Speleological Soc. (W. R. Halliday 1117 36 Ave., East, Seattle, Wash.). 29 Dec.

Philosophy of Science Assoc. (C. W. Churchman, Univ. of California, Berkeley). 29 Dec.

Scientific Research Soc. of America (D. B. Prentice, 51 Prospect St., New Haven, Conn.). 29 Dec.

Sigma Delta Epsilon (Miss E. B. Thurman, Natl. Institutes of Health, Bethesda, Md.). 28 Dec.

Society for General Systems Research (R. L. Meier, Univ. of Michigan, Ann Arbor). 29 Dec.

Society for Industrial and Applied Mathematics (D. L. Thomsen, Jr., I.B.M. Corp., White Plains, N.Y.). 29 Dec.

Society of Protozoologists (N. D. Levine, College of Veterinary Medicine, Univ. of Illinois, Urbana). 27–30 Dec.

Society of the Sigma Xi (T. T. Holme, 51 Prospect St., Yale Univ., New Haven, Conn.). 29 Dec.

Society of Systematic Zoology (C. F. Lytle, Tulane Univ, New Orleans, La.). 27–30 Dec.

Tau Beta Pi Assoc. (R. H. Nagel, Univ. of Tennessee, Knoxville). 29 Dec.

United Chapters of Phi Beta Kappa (C. Billman, 1811 Q St., NW, Washington 9). 29 Dec.

27–29. American Economic Assoc., New York, N.Y. (J. W. Bell, AEA, Northwestern Univ., Evanston, Ill.)

27–29. American Folklore Soc., Cincinnati, Ohio. (T. P. Coffin, 110 Bennett Hall, Univ. of Pennsylvania, Philadelphia 4, Pa.)

27–29. American Geophysical Union, 1st western natl., Los Angeles, Calif. (A. N. Sayre, U.S. Geological Survey, Washington 25)

27–29. American Physical Soc., Los Angeles, Calif. (K. K. Darrow, 538 W. 120 St., New York 27)

27–29. Western Soc. of Naturalists, Eugene, Ore. (I. A. Abbott, Hopkins Marine Station, Pacific Grove, Calif.)

27–30. Institute of Mathematical Statistics, annual, New York, N.Y. (D. C. Riley, American Statistical Assoc., 1757 K St., NW, Washington 6)

28–29. American Chemical Soc., Div. of Industrial and Engineering Chemistry, Newark, Del. (Scientific Liaison Office, Natl. Research Council, Sussex Dr., Ottawa, Canada)

28–29. Linguistic Soc. of America, annual, Chicago, Ill. (A. A. Hill, Box 7790 University Station, Austin 12, Texas)

28–29. Northwest Scientific Assoc., Spokane, Wash. (E. J. Larrison, Univ. of Idaho, Moscow)

28–30. Archaeological Inst. of America, Detroit, Mich. (L. A. Campbell, 5 Washington Square N., New York 3)

28–30. Phi Delta Kappa, Bloomington, Ind. (R. S. Merkel, Indiana Central College, Indianapolis 27)

January

2–3. California Assoc. of Chemistry Teachers, San Luis Obispo, Calif. (R. Major, 1736 N. Sierra Bonita Ave., Hollywood 46, Calif.)

8–12. International Heat Transfer Conf., Institution of Mechanical Engineers, London, England. (Secretary, IME, 1 Birdcage Walk, Westminster, London, S.W. 1, England)

8–12. Society of Automotive Engineers, annual, Detroit, Mich. (R. W. Crory, SAE, 485 Lexington Ave., New York 17, N.Y.)

8–13. Central Treaty Organization, Role of Science in Natural Resources, Lahore, Pakistan. (Office of Intern. Conferences, Dept. of State, Washington 25)

9–11. Reliability and Quality Control, 8th natl. symp., Institute of Radio Engineers and American Inst. of Electrical Engineers, Washington, D.C. (Scientific Liaison Office, Natl. Research Council, Sussex Dr., Ottawa, Ont., Canada)

9–12. Radioactive Isotopes in Clinical Medicine and Research, 2nd symp., Bad Gastein, Austria. (R. Höfer, Garnisongasse 13, Vienna IX, Austria)

9–19. Synoptic Meteorology Code Problems, World Meteorological Organization,

Toronto, Ont., Canada. (WMO, 41 Avenue Giuseppe Motta, Geneva, Switzerland)

11. Role of Hormones in Protein Synthesis, Assoc. of Vitamin Chemists, Chicago, Ill. (H. S. Perdue, Abbott Laboratories, N. Chicago)

15–17. American Pomological Soc., Toronto, Canada. (G. M. Kessler, Dept. of Horticulture, Michigan State Univ., E. Lansing)

17–19. Instrument Soc. of America, winter conf. and exhibit, St. Louis, Mo. (W. H. Kushnick, ISA, 313 Sixth Ave., Pittsburgh 22, Pa.)

18–31. Tropical Cyclones, inter-regional seminar, World Meteorological Organization, Tokyo, Japan. (WMO, 41 Avenue Giuseppe Motta, Geneva, Switzerland)

22. American Ethnological Soc., New York, N.Y. (N. F. S. Woodbury, Arizona State Museum, Univ. of Arizona, Tucson)

22–23. Symposium on Perspectives in Virology III, New York, N.Y. (M. Pollard, Univ. of Notre Dame, Notre Dame, Ind.)

22–24. Institute of the Aerospace Sciences, 30th annual, New York, N.Y. (IAS, 2 E. 64 St., New York 21)

22–26. American Mathematical Soc., annual, Cincinnati, Ohio. (AMS, 190 Hope St., Providence 6, R.I.)

23. Conference on Cardiac and Vascular Surgery, New York Heart Assoc., New York, N.Y. (R. Ober, NYHA, 10 Columbus Circle, New York 19)

23–25. American Soc. of Safety Engineers, Philadelphia, Pa. (A. C. Blackman, 5 N. Wabash Ave., Chicago 2, Ill.)

23–25. Obstetrics and Gynaecology, 2nd Asiatic congr., Calcutta, India. (S. Mitra, 4 Chowringhee Terrace, Calcutta 20)

24–26. Mathematical Assoc. of America, 45th annual, Cincinnati, Ohio. (H. M. Gehman, Univ. of Buffalo, Buffalo, N.Y.)

24–26. Thermophysical Properties, symp., American Soc. of Mechanical Engineers, Princeton, N.J. (E. F. Lype, ASME, c/o Thompson Ramo Wooldridge, 23555 Euclid Ave., Cleveland, Ohio)

24–27. American Physical Soc., annual, New York, N.Y. (K. K. Darrow, 538 W. 120 St., New York 27)

25–26. Western Spectroscopy Assoc., 9th annual, Pacific Grove, Calif. (D. G. Rea, WSA, Univ. of California Space Sciences Laboratory, Berkeley 4)

25–27. Western Soc. for Clinical Research, 15th annual, Carmel-by-the-Sea, Calif. (H. R. Warner, WSCR, Latter-day Saints Hospital, Dept. of Physiology, Salt Lake City 3, Utah)

26–29. Man and Civilization: Control of the Mind—II, San Francisco, Calif. (S. M. Farber, Univ. of California San Francisco Medical Center, San Francisco 22)

28–3. American Inst. of Electrical Engineers, New York, N.Y. (R. S. Gardner, AIEE, 33 W. 39 St., New York 18)

28–3. Pan American Assoc. of Ophthalmology, interim congr., Lima, Peru. (J. M. McLean, 525 E. 68 St., New York 21)

29–30. Carbohydrates, Cellulose, and Cellulose Industries, symp., Council of Scientific and Industrial Research, Ahmedabad, India. (Director, Ahmedabad Textile Industry Research Assoc., Ahmedabad-9)

(See issue of 1 December for comprehensive list)

New Products

The information reported here is obtained from manufacturers and from other sources considered to be reliable. Neither Science *nor the writer assumes responsibility for the accuracy of the information. All inquiries concerning items listed should be addressed to the manufacturer. Include the department number in your inquiry.*

Microbalance (Fig. 1), manufactured by Sartorius-Werke (Germany), is a self-balancing instrument with electrical indication. The beam of the balance consists of two quartz arms fused onto a quartz ring. The ring carries a wire coil wound on its inside surface, and is suspended by platinum-iridium torsion wires that also serve as current leads to the coil. The coil surrounds a cross-magnetized ceramic magnet that supports another coil through which a 480-kcy/sec current flows. When the balance is at equilibrium, the beam coil is not exposed to the high-frequency field. If the beam deviates from the equilibrium position because of a weight change, a 480-kc/sec signal is induced in the beam coil. This is used as an error signal to generate a counteracting current that is applied to the beam coil to return the coil to its equilibrium position. The counter torque is proportional to the current that produces it, so that the latter is a measure of the torque acting on the beam. At maximum sensitivity, 1 μa is equivalent to 1 μg.

The object to be weighed is placed on a small pan or suspended by wire from a hook on the stirrup. Preliminary zeroing is achieved by adjusting a counterweight that compensates for that portion of the sample weight in excess of the selected range. Final correction is made by dials controlling the torsion wire.

Stability of the balance depends on