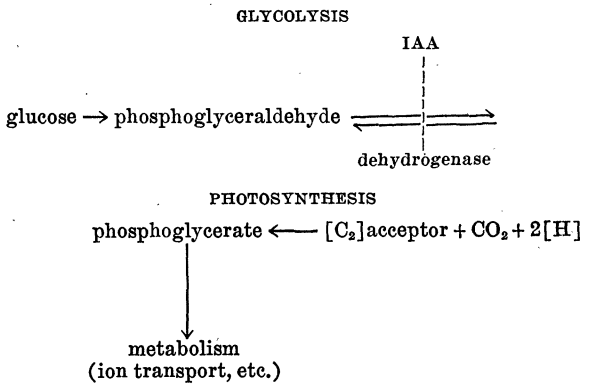
In the opinion of the authors, however, a more probable explanation of the observation here reported, and a view favored by further investigation of the problem in this organism (*13*), is as follows: Ion transport mechanisms, as yet to be elucidated, would be necessary to compensate for the continual flow of these cations with their concentration gradients across the cell surface. Such transports, according to this interpretation, would be energized by the metabolic degradation of phosphoglyceric acid, perhaps through the mediation of high energy phosphate bonds as in ATP.

A further elucidation of the precise mechanisms involved in this problem will pertain to one of the most fundamental activities of living cells: the capacity to maintain within cell boundaries a chemical composition which is characteristically different from that of the external environment, and here particularly the ability to concentrate K^+ and partially exclude Na^+ against their respective concentration gradients.

The postulated reactions may be summarized as follows:



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Manuscript received November 6, 1952.

Association Affairs

Southwestern Division Meeting

Frank E. E. Germann, *Secretary*

Southwestern Division

THE Southwestern Division of the AAAS held its twenty-ninth meeting in Tempe, Arizona, during the week of April 19th on the campus of the Arizona State College. One hundred and eighty persons registered, although the number participating in the meetings was much larger than this. As usual, many students took advantage of the opportunity to attend a regional scientific meeting. The sessions opened with a meeting of the Executive Committee, on which occasion John A. Behnke, Associate Administrative Secretary of the AAAS, represented the Washington office. At this time Wyoming and Montana East of the Continental Divide were officially added to the Division. Mr. Behnke reported briefly on the activities in the Washington office, as well as concerning the annual meetings scheduled for Boston and San Francisco.

In addition to the regular programs of sections, two special symposia were presented.

CONSERVATION SYMPOSIUM

Martin Mortensen, *Presiding*

1. The Nature of Conservancy in Arizona. Leslie N. Goodding, St. David, Arizona.

2. The Status of Conservation Teaching in New Mexico. Howard J. Dittmer, University of New Mexico, Albuquerque.

3. Report on Conservation Education Project Activities in Arizona. Wayne Kessler, Assistant State Conservationist, State Land Department, Arizona.

A summary of activities involving conservation education projects, in the following subdivisions: (1) in public schools, including high schools and grammar schools; (2) in the Arizona Conservation Districts; (3) in connection with cooperative agencies from the federal, state, and local governments.

4. General Discussion by Panel, led by Chairman Mortensen.

DESERT AND ARID ZONE SYMPOSIUM

Peter C. Duisberg, *Presiding*

1. Committee Accomplishment, 1952–53. Victor Schoffelmaier, Glendale, California (Former President, Texas Chemurgic Council).

2. Survey of Desert and Arid Zone Research in Progress in the Southwest. E. J. Workman, President, New Mexico Institute of Mining and Technology, Socorro.

3. Worldwide Efforts Toward Arid Zone Research. Peter C. Duisberg, Desert Products Company, El Paso.

4. Committee Suggestions for Further Activity. Herbert L. Stahnke, Arizona State College, Tempe.

5. General Panel Discussion.

Other special features were the annual Powell Lecture in honor of the explorer of the Grand Canyon, given by Emil W. Haury of the University of Arizona on the subject "Dating of Early Man," and an illustrated talk on "Desert Denizens" by Herbert L. Stahnke.

The General Session on April 22 adopted the following resolutions:

1) "In order to increase both the membership and the effectiveness of the AAAS, its Southwestern Division requests the Board of Directors of the AAAS to explore possibilities of additional types of membership. Examples of these types are student membership, memberships without journal subscriptions, two memberships (such as man and wife) in one family, and emeritus status. If the study results in new action, it should be appropriately publicized, preferably by publication in SCIENCE.

2) "Resolved that the Southwestern Division of the AAAS instruct its Desert and Arid Zone Committee to explore the possibility of cooperating with UNESCO to the end of bringing an International Desert Symposium to the Southwest.

3) "Resolved that the Desert and Arid Zone Committee be instructed to study the possible sources of funds to stimulate and aid in sponsoring Arid Zone Research.

4) "It is the considered opinion of this Division of the AAAS that the challenging possibilities of television as an educational factor of the first order be used increasingly to acquaint the public, and especially the younger generation, with the progress and achievements of science.

"For the fullest implementation of such science education via television we feel that educationally owned and operated television stations are essential, and should be encouraged in every way.

"The Southwestern Division of the AAAS therefore resolves that it wholeheartedly favors, and will encourage and support, the development in the Southwest of television stations on these channels in this area reserved by the Federal Communications Commission for educational work."

New officers elected were Herbert L. Stahnke of the Arizona State College at Tempe, President, and Joe Dennis of the Texas Technological College, Vice President. Frank E. E. Germann, of the University of Colorado remains Permanent Secretary. E. J. Workman of the New Mexico Institute of Mining and Technology, and Alan T. Wager of the Arizona State College of Tempe were elected to the Executive Committee. George M. Bateman of the Arizona State College at Tempe, James A. McCleary of the Arizona State College at Tempe, W. J. Coster of the University of New Mexico, and W. C. Holden of the Texas Technological College at Lubbock were chosen Chairmen of the Physical, Botanical, Zoological, and Social Science sections respectively. Bartlett Dewey of the Eastern New Mexico College and William M. Pierce of the Texas Technological College were elected secretaries of the Physical and Social Sciences sections respectively, and Edwin R. Helwig of the University of Colorado will continue as secretary of both the Botany and Zoology sections.

Future meetings are scheduled as follows: 1954, Lubbock, Texas; 1955, Santa Fe, New Mexico; and 1956, Las Cruces, New Mexico.

Scientific Book Register

Modern College Physics. 2nd ed. Harvey E. White. New York–London: Van Nostrand, 1953. 823 pp. Illus.+ plates. $6.75.

Robert Grosseteste and the Origins of Experimental Science, 1100–1700. A. C. Crombie. New York: Oxford Univ. Press, 1953. 369 pp. Illus.+plates. $7.00.

Introduction to Exceptional Children. Rev. ed. Harry J. Baker. New York: Macmillan, 1953. 500 pp.+plates. $5.00.

The Zoological Record, Vol. 87. Records of zoological literature relating chiefly to 1950. G. Burder Stratton, Ed. London: Zoological Society, 1953. 19 sections. £6 for complete volume with special prices for separate sections.

Oxidation of Metals and Alloys. O. Kubaschewski and B. E. Hopkins. New York: Academic Press; London: Butterworths Scientific Pubs., 1953. 239 pp. Illus. $6.00.

Africa: A Study in Tropical Development. L. Dudley Stamp. New York: Wiley; London: Chapman & Hall, 1953. 568 pp. Illus+maps. $8.50.

Starch: Its Sources, Production and Uses. Charles Andrew Brautlecht. New York: Reinhold, 1953. 408 pp. Illus. $10.00.

Inorganic Thermogravimetric Analysis. Clément Duval. Amsterdam–Houston: Elsevier, 1953. 531 pp. Illus. $11.00.

Kiva Mural Decorations at Awatovi and Kawaika-A. With a survey of other wall paintings in the Pueblo Southwest. Papers of the Peabody Museum of American Archæology and Ethnology, Vol. XXXVII. Watson Smith. Cambridge, Mass.: Peabody Museum, Harvard University, 1952. (Published with the assistance of the Wenner-Gren Fdn. for Anthropology). 363 pp. Illus.+plates. $10.00; paperbound $7.50.

Animal Micrology. Practical exercises in zoölogical micro-technique. 5th ed. Michael F. Guyer; with a chapter on drawing by Elizabeth A. Bean. Chicago: Univ. Chicago Press, 1953. 327 pp. Illus. $4.75.

An Introduction to Statistical Science in Agriculture. D. J. Finney. Copenhagen: Ejnar Munksgaard; New York: Wiley, 1953. 179 pp. Illus. $3.75.