129th Annual Meeting

Eighth Philadelphia Meeting
26–30 December

In the spring of 1961 a scientist was ascending the "unclimbable" Mt. Ama Dablam in Nepal while another was experimenting with beetles in a laboratory several thousand miles away. Dissimilar as these activities seem, the two men had a common concern, the advancement of scientific knowledge. Both will discuss the results of their investigations at the 129th meeting of the AAAS, in Philadelphia, in two of a series of special sessions, which will also include evaluations of the effects of new knowledge on man and man's understanding of science.

This year Gerald Holton of Harvard will deliver the George Sarton Memorial lecture (28 Dec.). This will also be the vice presidential address of the section on History and Philosophy of Science (L). In his lecture, "The three types of scientific hypothesis: Toward a program of thematic analysis," Holton will examine the analysis of science in terms of its thematic propositions. These are propositions that are coupled neither to phenomena nor to tautological structuring schemes but to certain themes some of which persist through major debates about "fact" and others of which change during major conceptual transformations. Holton, author of several works on modern science and the intellectual tradition and former editor of *Daedalus*, journal of the American Academy of Arts and Sciences, has said that science can be analyzed in terms of its phenomenologic propositions—propositions concerning empirical matters of "fact"—and its heuristic analytic propositions—propositions concerning consistent calculi. These two dimensions define a fruitful scheme of discussion, one with which the work of most of today's historians and philosophers of science is in accord.

Equal in importance to man's understanding of science is the effect of science on our modern society. With advances in scientific knowledge and techcreasing, and man's life span is innology, human mortality rates are decreasing. Thomas Park, retiring president of the AAAS and professor of zoology at the University of Chicago, is concerned with the dynamics of population. Park's ecological experiments, in which he used beetles as test subjects, have resulted in many interesting discoveries which may be pertinent to human society. In his presidential address, "Beetles, competition, and population" (28 Dec.), he will discuss some of his results and explain how the byproducts of his research could be the basis for further studies in population dynamics and genetics.

Also concerned with populations, but from a different viewpoint, is Loren C. Eiseley, who will deliver the joint annual address of the Society of the Sigma Xi and the United Chapters of Phi Beta Kappa (29 Dec.). Eiseley, professor of anthropology and the history of science and chairman of the department of history and philosophy of science in the graduate school of the University of Pennsylvania, is apprehensive about the effects that new scientific knowledge has had and will have on man. In his talk, "Man: The lethal factor," he will examine the biological and cultural factors which in the past have enabled man to survive and which now threaten him with extinction.

Another speaker will deal with the research scientist himself and his relationship to the engineer, concerned with applications. In the Tau Beta Pi lecture. Clifford C. Furnas, former Assistant Secretary of Defense for research and development, now chancellor of the University of Buffalo, will discuss "Organizing complexity—the role of the engineer and the scientist" (29 Dec.). Traditionally the research scientist explored only the laws of nature and cared little about applications, whereas the engineer sought to design something useful and cared little about why it worked. Fortunately the increasing complexity of modern devices and systems is inducing a new viewpoint and a revision of approaches. Furnas will cite examples of effective collaboration between engineers and scientists in complex organization for predetermined objectives. He will also discuss desirable patterns of education, offering suggestions, not panaceas.

One of man's struggles against nature will be described and illustrated during the annual program of the National Geographic Society. Barry C. Bishop, National Geographic Society staff member, will report the scientific findings of Sir Edmund Hillary's recent expedition to Nepal. (Bishop's illustrated *Wintering in the High Himalayas*, soon to be published, will reveal the beauty of the highlands where the expedition survived for 8 months in the shadow of Mount Everest.) While serving as glaciologist and climatologist, Bishop also worked on tests to determine capabilities of human beings at high altitudes. As a "holiday" from routine work, he and three companions scaled Ama Dablam, 22,494 feet high and previously unconquered. The party also investigated high-country tales about the Yeti, the abominable snowman. He will describe this and other exciting experiences of the expedition.

More detailed information on the Philadelphia meeting will appear in the 7 December issue of *Science*. Complete details will be given in the General Program, to be published early in December.

(Top) Mt. Ama Dablam, meaning "mother's charm box," refers to a Sherpa woman's ornament. Barry C. Bishop, National Geographic Society, took the photo while a member of the Hillary expedition to the Himalayas. At the AAAS Philadelphia meeting he will discuss his ascent to the peak and other experiences. [*Copyright National Geographic Society*] *(Bottom) Philadelphia skyline by night.* [*Mayor's Office for Information (Phila.)*]