vice. It was the author's privilege to hear him lecture as late as 1922, as well as to travel and work with him for a number of weeks in Belgium, Holland and England. With Capitan may be said to have passed the last of the distinguished group of men who first made us properly acquainted with the physique and culture of Paleolithic man.

N. C. NELSON
AMERICAN MUSEUM OF NATURAL HISTORY,
NOVEMBER 15, 1929

ALEXANDER VASILIEVITCH VASILIEV

(JULY 2, 1853–OCTOBER 6, 1929)

IN the passing of A. V. Vasiliev in Moscow, Russia, the world has lost one of its great scientists, great teachers, great men.

To be a great scientist is one thing; to be a great scientist and a great teacher is quite another. A great teacher must ingest, digest and evaluate the works of others in many lines in order to give broad, judicial and interesting selections to students. To be at once a great scientist, a great teacher and a great man is still different—it is all too rare a combination. Besides the requisites for the first two, individual synthesis, a broad human vision and interest, effective and energetic enough to be an inspiration and guide for living and acting, are essential.

A unique combination of these characteristics made the life of Vasiliev a memorable and most useful one. Not satisfied with his own achievements, he devoted much of his energies to foster, elucidate, coordinate and apply the great works of Lobachevski, Tschebytschev, Weierstrass, Kronecker, Hermite, Sophus Lie, Peano, Whitehead, Russell, Keyser, Einstein, Minkowski and others, and just before his end, the works of De Broglie, Schrödinger and Heisenberg.

Vasiliev was born in the city of Kazan, made famous by Lobachevski. His background was scientific, his father being a noted Sinologue, his grandfather a well-known astronomer and rector of the University of Kazan.

In 1874 he graduated from the University of Petrograd with a gold medal and lectured at the University of Kazan on the theory of function, the theory of numbers and the theory of probability. He was sent abroad in 1879 to prepare for a professorship. In Berlin he studied under Kronecker and Weierstrass, and in Paris under Hermite. In 1884 he was awarded the title of doctor of pure mathematics for his work on the theory of roots of algebraic equations. He became professor emeritus in 1899, and until 1907 he lectured at the University of Kazan. During this period, among other activities he organized the Physicomathematical Circle, was instrumental in the establishment by the Physicomathematical Society of the Lobachevski international prize and initiated the building of a monument to Lobachevski.

In 1907 he was transferred to Leningrad, where he lectured at the university and other institutions of higher learning on the theory of groups, being the first in Russia to emphasize its importance, the theory of numbers, applied mathematics, mathematical philosophy, foundations of mathematics, etc.

In 1923 Vasiliev moved to Moscow and became an active member in the editorial commission of the Mathematical Institute for the full edition of the works of N. I. Lobachevski. He prepared also a biography for the first volume.

His lectures were always brilliant, broad and synthetic, full of freshness and new ideas. An accomplished linguist, at home in Russian, French, German, English, Italian, he read very widely and introduced to his Russian audiences the latest points of view and methods in science. His exceptional erudition outside of mathematics and physics included biology, psychology, history and philosophy, allowing him to make his lectures not only intensely interesting but also simple. His auditoriums were always packed. He approached his students as an equal and inspired them to independent creative thinking. He was to them an ideal of what a scientific man ought to be.

In the international field his influence was also far reaching. He was active with the late Cantor in the organization of mathematical congresses. In his papers and lectures he made Europe acquainted with the works of Russian mathematicians like Lobachevski and Tschebytschev. The Lobachevski International Prizes for works on non-Euclidean geometry and mechanics, in establishing which he was instrumental, have been awarded to men like Hilbert, Sophus Lie; Klein, Poincaré; Coolidge, Whitehead, etc. His international influence was so pronounced that the French scientists induced the French government to award Vasiliev the title of "Officier de l'instruction publique."

Outside of technical papers he was the author of several fine text-books on the theory of function, the theory of numbers, the theory of probability, etc. His beautiful lecture on Lobachevski has been translated into English, German, French, Spanish and Bohemian. Always keeping abreast of his time, he wrote an excellent historical introduction to the Einstein general theory under the title of "Space Time Motion," with an introduction by Bertrand Russell. His broad paper on "The Acquisitions and Enigmas of the Philosophy of Nature," sent to the International Philosophical Congress at Harvard (1926), has been published in book form. A few hours before his death he was working at a historical and methodological introduction to the new quantum mechanics.

In public life Vasiliev was an active member of the left wing of the liberal party; he was elected to the Russian Duma and later was elected by the Academic Union to the State Council.

In such a brief note it is impossible to do justice to the grandeur of such a fruitful life. The present writer will always remember with admiration the interest the late Vasiliev displayed in the application of scientific methods to the affairs of man.

In his scientific works, in the influence which resulted from his broad social consciousness and in the memories of those who were fortunate enough to have been associated with him, he has built for himself a lasting memorial.[1]

Alfred Korzybski

New York

RECENT DEATHS

Dr. Edward Drake Roe, Jr., for twenty-nine years professor of mathematics at Syracuse University, died on December 11, in his seventy-first year.

Professor Fred Neher, of the department of chemistry at Princeton University, a member of the faculty since 1891, died on December 11. He was sixty-two years old.

Professor Ole Olfusen, sixty-four years old, Danish explorer, died at Copenhagen on December 13. Among his works was a book on the Yellowstone National Park.

MEMORIALS

Special memorial services to honor Dr. Victor C. Vaughan were conducted under the auspices of the University of Michigan on December 3. President Alexander G. Ruthven represented the university and Dr. Walter H. Sawyer the regents. There was a representative of the state of Michigan among the speakers also. Dr. Novy appeared for the faculty of the School of Medicine and Professor Moses Gomberg on behalf of the department of chemistry. Professor William H. Hobbs spoke as a colleague of Dr. Vaughan.

Upton House, the Queen Anne mansion in which Joseph Lister was born in 1827, was in 1885 acquired for a vicarage for the Church of St. Peter, Upton Cross, London. In order to repair and preserve the house, an appeal is made for £1,800 by the Parochial Church Council. Checks should be drawn in favor of "Lord Lister's Birthplace Preservation Fund," and sent to the honorary treasurers of the fund at Upton House, Forest Gate, London.

SCIENTIFIC EVENTS

ASTRONOMY IN SOUTH AFRICA

It is reported by *Science Service* that three groups of European astronomers are planning separate observatories in South Africa, in addition to the six already there. The University of Leyden, Holland, will be the next northern observatory to establish a branch south of the Equator to observe parts of the sky invisible from Europe or America. Professor W. de Sitter, director of the Leyden Observatory, has recently inspected South African sites, and decided to establish the branch on the grounds of the Union Observatory at Johannesburg.

Another southern observatory is to be established here as a joint enterprise of all the German observatories. Professor P. Guthnick, director of the Berlin University Observatory at Neubabelsberg, a suburb of Berlin, also made a recent inspection of possible sites. So far he has not decided between Bloemfontein, Pretoria and Windhoek, but it is believed that the odds are in favor of the first.

Further, it is planned to move the Radcliffe Observatory, now at Oxford, England, to South Africa. This institution, equipped with an 18-inch refracting telescope in addition to smaller instruments, has no connection with the University of Oxford, which has its own observatory. Sir Frank Dyson, astronomer royal, and Dr. H. Knox-Shaw, in charge of the Radcliffe Observatory, recently visited possible locations. So far they have not decided between Bloemfontein and Pretoria.

The Royal Observatory at Cape Town is the oldest of the present South African observatories. Its largest telescope is a refractor with a lens 24 inches in diameter. The University of South Africa, also in this city, boasts an observatory with an 18-inch refractor.

At Johannesburg is the Union Observatory, with a 26-inch refractor. Both the University of Michigan and Yale University have established branches on the Union Observatory grounds with 27-inch and 26-inch refracting telescopes, respectively.

At Bloemfontein is the branch of the Harvard College Observatory, formerly located at Arequipa, Peru. This institution has now a 24-inch photographic refracting telescope and a reflector with a 16-inch mirror. A reflector with a 60-inch mirror is now being completed at Pittsburgh and will be installed at the Harvard Station. This will be the largest telescope south of the Equator.

[1] Part of the material in this article is taken from a biography of Professor A. V. Vasiliev by his pupil, Professor N. N. Parfentiev.