

ANTICIPATING THE *NORGE*—A FORGOTTEN

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TO predict the wireless telegraph, to foretell the conquest of the north pole by a dirigible airship, to envisage a great war in which the United States should be engaged and place its date just *four days* before our actual declaration of war against Germany—and all this more than *thirty-five* years ago—is, as any reader will admit, sufficiently remarkable, waiving wholly aside, for the moment, less extraordinary feats of prevision. Such a performance, though viewed merely as a series of happy guesses, should have won for itself a notable place in the literature of prognostication. In reality, however, the book which embodies these triumphs of foreknowledge—or, if the reader prefers, this rare series of coincidences—fell still-born from the press, and, so far as careful inquiry discloses, the present is the first review of the work, and in fact, with a single exception, the first notice it has ever received.

The volume to which we refer is a scientific romance entitled *A. D. 2000*, published by Laird & Lee of Chicago in 1890 and written by Alvarado M. Fuller, then a lieutenant but later a colonel in the United States army, and who, as the War Department reports, died in 1924, and the exception to the statement at the outset of this paper that no review or notice of the work had been found by the present writer is an article which appeared in the *Washington Times* for September 3, 1905, in connection with designs for a new type of submarine boat submitted by the author of *A. D. 2000* and then under consideration by the Board of Construction of the United States Navy—a vessel which the inventor called the “auto-torpedo submarine” and which, if adopted, would,

according to his prediction, "almost do away with great and costly battleships."

A review of Fuller's extraordinary novel, nearly two score years after publication, would not be untimely in any case but it becomes peculiarly appropriate in view of the passage of the north pole by Amundsen and his associates as recently as May, 1926, since that epochal performance, with the announcement of the event by wireless from the pole itself, exactly parallels the crowning episode of Fuller's story. Such a feat, moreover, was not easily foretold in 1890. It would have been a rather bold prophecy even in 1926, for up to the very hour of its triumph the world of science was skeptical of the Amundsen-Ellsworth-Nobile Expedition.

It is a picturesque civilization which Fuller describes. We behold great cities, with glass-paved streets along the second stories, and imposing structures of the same material, now malleable and fitted to thousand-fold uses. Between great centers pneumatic trains, propelled in tubes, glide at startling speeds, while in the air-ways above huge dirigibles are sailing and in the ocean depths elegantly appointed submersibles.

Many of the dreams cherished by scientists when the book was being written are realized in Fuller's story. Those already in existence, actually or in principle, such as the under-ground street-railway, the telephone, electric traction and electric illumination, are displayed in their perfection.

Daily news, in Fuller's romance, is gathered together at a central point by wireless from all parts of the world, and telegraphically set up in thousands of cities at one operation by synchronized machines—something which recent science has brought within the realm of the possible. Niagara has become a huge dynamo and the Gulf Stream, by a grandiose project, has been controlled so as to moderate the winters in the northeastern states.

In a piece of vaticination amazing for its approximation to exact truth Fuller places the outbreak of a great war on the part of the United States on April 2, 1917. It was on April 6, 1917—just four days after—that our country entered the World War. It is true the struggle, as foretold by Fuller, was with England, but it is fair to forgive this error in view of the uncanny nearness to exactitude in time.

The automobile of the twenty-first century is not the gasoline motor-car but the electric motor car, drawing its power, as does the

electric railway locomotive and the electric street railway of that distant period, from small but tremendously powerful storage batteries,—an ideal in the electrical field which in our own time still awaits the wizardry of science.

The gasolene motor-car seems not to fall within the author's ken. It is well, however, to be patient. Before the dawn of *A. D.* 2000, perhaps, Fuller's vision may be a reality and the gasolene automobile of today—complicated, noisy, dangerous and wasteful of power as it is—may have become a memory and a tale. The quest for the secret of storing powerful and long-lived electrical charges within small space is still on and when that quest is rewarded the electric automobile—simple, safe, silent and swift—should speedily replace the present less perfect instrument. Meanwhile, let us say, for the prophet's credit, that even the electric automobile with its present limitations did not appear until 1892, according to the *Encyclopedia Americana*—two years after the publication of Fuller's book—and did not attract general attention until 1900.

Gasolene itself, if that source of energy fell at all within Fuller's vision, gives place to a synthetic gas of great power created by laboratory methods. The application of gasolene, indeed, to extensive and varied uses in our day the prophet passes by. So, the immense use of the phonograph in the business and musical life of today our author failed to see, although the invention had been perfected in 1878 and Fuller utilized the discovery for a phonographic clock which called sleepers to awake. In this aspect of things, however, the author of *A. D.* 2000 was no more faulty a prophet than Mr. Edison himself, who, in picturing the future of the phonograph in the *North American Review* for May-June, 1878, seemed not to suspect the revolution he was himself about to inaugurate in the musical life of the world and devoted only a few lines to the musical aspects of his great invention.

As in the case of all prophets, in every age and clime, Fuller goes dismally awry when he augurs of woman and her future. Far behind the reality does his halting imagination lag and he fails pathetically to take account of the swiftness with which the gentler sex, once liberated from its slavery to tradition, accomplishes reforms. By the year of grace 2000, it appears, women had consented to raise their skirts eight inches from the ground!

Helium, the x-ray, radium, the radio, the moving picture, Fuller

does not foresee, nor the aeroplane, nor even the use of the submarine boat as an agent of destruction in war. However, we must beware of overworking our prophets. Never in the history of man were so many discoveries and inventions crowded into a brief space as during the few decades following the appearance of Fuller's book. Something, also, we must pardon to the spirit of caution. As to the aeroplane, it is to be remembered that experiments with heavier-than-air flying machines had proven uniformly unsuccessful at the date of the composition of the book. So, too, in so far as concerns the use of the submarine boat in naval warfare, Fuller, if he thought of it at all, was possibly thrown off by the experiment of the United States government in 1810 with Fulton's under-sea boat when the brig *Argus* was successfully protected against torpedo attack by strong netting.

Fuller appears to have completely overlooked the Spanish-American War, which destiny had fixed for a date only a few years distant. With the possibility of embroilment over Cuba constantly present that war might well have been foreseen. Perhaps our soothsayers, like ordinary mortals, are occasionally hypermetropic and the vision declines to focus upon events just under the prophet's nose.

Now and then the author of *A. D. 2000*, stationed as a sentinel on the watch-tower of futurity, nods, and dreams of things which have not been and never can be—so far at least, as our modern knowledge justifies us in speaking—and with the date which stands out so prophetically in the history of our country there are others of no discoverable significance. Thus, for example, in August, 1916, a subsidence takes place in the earth's crust occasioned by an explosion of natural gas and this produces an inland sea of vast extent, reaching from Louisville to Cincinnati and Pittsburg.

Offset against the instances, however, where the oracle was dumb, doubtful or mistaken in the magnificent anticipation of our modern wireless, which Fuller called, not inappropriately—even according to our notions today—the *sympathetic telegraph*. This was a truly daring piece of scientific prophecy, for it was only in 1886-7—about the time Fuller began his book—that Hertz discovered the ether-waves upon which the wireless telegraph and radio vibrations are propagated, and it was not until 1890—almost certainly after the book was in the hands of the printer—that Dr. Branley discovered the "coherer" by which the presence of those

waves could be detected. The Hertzian waves, it is true, Fuller does not mention, nor does he foretell their utilization in our modern wireless and radio, but the wireless itself he predicts, and this, after all, is the most we may ask from the scientific seer who relies only upon his imaginative reason and makes no pretense to divine illumination.

This, then, briefly, is the story of the singular novel which came unnoticed from the press and sank at once into the limbo of forgotten things, but which, all in all, is as astonishing a piece of prophetic fiction as can be found in literature.