'Life on Mars. A Veteran Scientist Sceptical.'

"Is Mars Habitable?" By Dr. Alfred Russel Wallace: Macmillan.

If Lowell’s theory is sound, that life exists on the planet Mars, and that the inhabitants have reached a high degree of culture far surpassing that of the human species, it follows that Dr. Alfred Russel Wallace must be wrong in not only placing the earth at the centre of the universe, but supposing that no other member of the solar system is the abode of life, and that man represents the highest point hitherto attained in the process of cosmic evolution. We do not say that the veteran scientist whose name is associated with that of Darwin as the co-discoverer of the origin of species by natural selection was consciously biassed in his unfavorable judgment on Lowell’s hypothesis by a consideration of its destructive effect, if it be valid, on his own. It is reasonable to assume that Dr. Wallace felt that he could, in a perfectly scientific spirit, demand much more evidence before subscribing to the sensational theory that the so-called canals on Mars prove that the planet is inhabited by a highly developed race of beings.

The faint markings on the disc of Mars, described as canals, were declared by Lowell, as the result of observations with his 24-in. telescope at Flagstaff, in Arizona, to be “non-natural” features; and his explanation is that they are channels cut by intelligent beings for the purpose of diverting to the inhabited parts of the planet the waters released by the melting of the polar snows. These canals, assuming them to be actually such, are gigantic engineering works, as may be judged by the fact that a single one, transferred to the earth, would stretch across the North American Continent from Boston to San Francisco. Lowell supposes that the mean temperature of Mars is as high as that of the South of England; but both as to the nature of the canals, and the climate of the red planet, his conclusions are mercilessly attacked by Dr. Wallace. The form and the dimensions of the canals, he urges, both suggest a natural origin. But if they are the work of intelligent beings, the intelligence of the Martians must have gone to sleep when they constructed them, for in a planet with no rivers or oceans they would be virtually useless, as any water coming from the poles would be evaporated in the open channels long before it reached the hypothetical oases. Dr. Wallace concludes from the fall of temperature in the rarefied air of high latitudes, and the results of Langley and Very’s researches into the frozen condition of the moon, that the highest possible temperature on Mars cannot be far above the freezing point, while the average is probably about 70 degrees of frost. “Mr. Lowell,” he says, “never even attempts to explain how the Martians could have lived before this great system was planned and executed, or why they did not first utilise and render fertile the belt of land adjacent to the limits of the polar snows. How, with such a desert as he describes three-fourths of Mars to be, did the inhabitants ever get to know anything of the equatorial region and its needs, so as to start right away to supply those needs? . . . Mr. Lowell never even refers to the important question of loss by evaporation in these enormous open canals, or considers the undoubted fact that the only intelligent and practical way to convey a limited quantity of water such great distances would be by a system of water-tight and air-tight tubes laid under the ground.” So far from the Martians being distinguished by gifts enormously exceeding those of men, Dr. Wallace says—“The mere attempt to use open canals for such a purpose shows complete ignorance and stupidity in these alleged very superior
beings; while it is certain that long before half of them were completed their failure to be of any use would have led any rational beings to cease constructing them.” His own view of the canals is that of Professor Pickering, who holds that they are actual cracks in the surface of the planet.