

THE PLANET MARS

by Francis J. Heyden, S.J.

The planet Mars has had more influence on man than any other of the five that were known to the eyes of men from the dawn of history. It has given its name to Tuesday, the third day of the week, although somehow the English picked up the word Teuton for Mars in creating this name. But we have Mardi-gras, martial law, martinets. Perhaps we should not try to blame Mars for marital problems.

As one of the five planets known its color has associated it with the tinge of blood and war. This color however has grown into the entire scientific history of Mars as it has been studied more closely by telescope and visual observer. From the time when Kepler's harmonic law and the first accurate determination of the solar parallax, it has been known to come as close as thirty-five million miles at time of opposition. While this distance is too great for close resolution with any existing telescope, it was not too great for the early planetary observers. In fact Mars presents to the observer more detail than any other object in space save the moon.

The first great observer of Mars was the Italian astronomer, Schiaparelli. Aside from having an excellent telescope he had the patience and keenness of eye to assimilate the glimpses that he got through his eyepiece. He had the advantage of the city skies a century ago when city lights were non-existent. He sketched details on the surface that convinced him of the presence of continents, deserts, oceans, and little streaks where man made waterways, but he had seen the streaks, and unconsciously had started a source of controversy that was to last for nearly a century.

Almost contemporary with Schiaparelli was the French astronomer and artist who painted pictures of what he saw. His pictures preserved in lithographs, show details on the planets Jupiter, Saturn, the Great Nebula in Orion that are better than can be recorded on the best photographs today. But his picture of Mars is a disappointment. It shows none of the details that Schiaparelli saw.

At the turn of the century Harvard had produced two planetary observers: Percival Lowell, one of the famous New England family, and William Pickering, brother of the Director of Harvard Observatory. Lowell went to Flagstaff in Arizona where the best observing in the world can be found even today. He built there his own private observatory and settled down to observe Mars and to look for a new outer planet. He saw the streaks that Schiaparelli had called "canali" and he called them canals. In fact he became completely convinced of the existence of life on the planet.

Both he and Schiaparelli saw not only canals but polar ice caps, changes in color that indicated seasons and to them every indication that Mars was a miniature earth. Unfortunately most of this comparative science was based on the premise that white was snow, green was grass, brown was dust and blue was water. The scientific world has not given up that assumption even at this time.

Lowell was not too convinced that the evidence of life he saw was conclusive. You will find him bidding "Goodby" to the life he saw, because the next generation, our's would see only a dead planet.

While Lowell was writing his book on Mars, "An Abode of Life," William Pickering was trying to tear down his evidence of canals. He could