

Man on the moon: Mixed emotions

The applause earned by Apollo 11 astronauts muffles but doesn't obliterate the questions the effort has raised

A mixture of awe and uneasiness: That is the reaction to Apollo 11.

The entire Apollo program has generated such a reaction. Its almost unbroken string of successes—a true miracle wrought by courage, dedication and the mobilization of the most complex industrial and technological combine ever conceived—makes it difficult if not almost immoral to take a less than enthusiastic view. And the fact that a human being has now actually put his foot on an extraterrestrial body compounds the difficulty of tempering awe and enthusiasm with the skepticism necessary to charting a future course.

It was a lack of skepticism bordering on innocence that led Vice President Agnew, on the day of the Apollo 11 launch, to suggest that another Apollo-like program ought to begin, with Mars as the target. Wiser, if not older, heads working with him on a panel devoted to charting the next decade's space program for the United States will prevail, and a balanced and less dramatic effort will emerge, designed to make both scientific and technological capital out of the massive investment in spectaculars that characterize Apollo.

President Kennedy, driven by political, economic and perhaps poetic, rather than scientific, motives, offered us the space program almost a decade ago. It was an offer made, and accepted, with enthusiasm untempered by jaundiced evaluation of costs and benefits.

During the eight years that Apollo has been a national goal, the questioning voices that did emerge, arguing costs against benefits, have become more strident.

Nothing can mar the glory earned by the astronauts who first placed a human foot on the surface of the moon. Their personal heroism and the drama of their accomplishment assure them a permanent place in human—not only American—history. But chroniclers of such an accomplishment are more often moved by enthusiasm than by the objectivity necessary to a balanced appraisal of events which, at first blush, appear to be unqualified achievement. It is a quirk of human history, as it is written, that the act of heroism, rather than its lasting value, often becomes the determining element in the naming of heroes.

Despite the fact that there will be features on the moon to carry the names of Edwin Aldrin, Neil Armstrong and Michael Collins into eternity, as well as statues cast of them, schools named for them and books

written about them, it will be months or years before the true significance of their accomplishment will be written. That significance may never be in orbiting way-stations to the stars or colonization of the planets.

It is likely to reside rather in a relatively thick, special issue of the journal *SCIENCE*, in which will be assembled the results of the scientific experiments carried out on the samples of lunar materials returned by the astronauts to the earth. For apart from the emotions first stirred by President Kennedy's 1961 commitment to land a man on the moon in this decade, the magnitude of the effort and the anxieties inspired by almost 10 years of cosmic cliff-hanging in the wait for Sunday's accomplishment, those 80 pounds of lunar rock and that one volume of scientific results are the real stuff of history.

And the verdict of history will have to determine whether information on the structure, age and origin of the moon, the glamor of the accomplishment notwithstanding, were worth in the sixth decade of the 20th century what the nation has expended on it.

Apollo has absorbed the efforts of a half-million workers, charted the technological course for 20,000 corporations and, while it contributed technologically to national security as no lesser program could have done, it has built a dependence on Federal financing into a massive segment of the national economy.

That is only part of the cost.

In the long run, the tragedy of the space effort will not be that we spent \$24 billion for 80 pounds of rock, an exciting adventure and a single volume of scientific results. It may rather be that, during a decade when the character of the world was changing and a desperate need for a new kind of world leadership was emerging, the United States settled for more of the same kind of industrial and technological mastery which had made it great in an earlier, simpler world.

We embraced the space program and the industrial-technological juggernaut it spawned. And we have made demigods of a crew of first-class test pilots who put our footprint on the cosmos, as if we were children thrilling at our ability to put the first footprint on a virgin field of snow. It is impossible to minimize the astronauts' accomplishment; they acted for us, and acted heroically.

But the verdict of history may well be that, while the world erupted, we ignored the real challenge and chased a rocket trail to the moon.

