

APOLLO 11

By Ayn Rand

"No matter what discomforts and expenses you had to bear to come here," said a NASA guide to a group of guests, at the conclusion of a tour of the Space Center on Cape Kennedy, on July 15, 1969, "there will be seven minutes tomorrow morning that will make you feel it was worth it."

It was.

The tour had been arranged for the guests invited by NASA to attend the launching of Apollo 11. As far as I was able to find out, the guests—apart from government officials and foreign dignitaries—were mainly scientists, industrialists and a few intellectuals who had been selected to represent the American people and culture on this occasion. If this was the standard of selection, I am happy and proud that I was one of these guests.

The NASA tour guide was a slight, stocky, middle-aged man who wore glasses and spoke—through a microphone, at the front of the bus—in the mild, gentle, patient manner of a schoolteacher. He reminded me of television's "Mr. Peepers"—until he took off his glasses and I took a closer look at his face: he had unusual, intensely intelligent eyes.

The Space Center is an enormous place that looks like an untouched wilderness cut, incongruously, by a net of clean, new, paved roads: stretches of wild, subtropical growth, an eagle's nest in a dead tree, an alligator in a stagnant moat—and, scattered at random, in the distance, a few vertical shafts rising from the jungle, slender structures of a shape peculiar to the technology of space, which do not belong to the age of the jungle nor even fully to ours.

The discomfort was an inhuman, brain-melting heat. The sky was a sunless spread of glaring white, and the physical objects seemed to glare so that the mere sensation of sight became an effort. We kept plunging into an oven, when the bus stopped and we ran to modern, air-conditioned buildings that looked quietly unobtrusive and militarily efficient, then plunging back into the air-conditioned bus as into a pool. Our guide kept talking and explaining, patiently, courteously, conscientiously, but his heart was not in it, and neither was ours, even though the things he showed us would have been fascinating at any other time. The reason was not the heat; it was as if nothing could register on us, as if we were out of focus, or, rather, focused too intently and irresistibly on the event of the following day.

It was the guide who identified it, when he announced: "And now we'll

show you what you *really* want to see”—and we were driven to the site of Apollo 11.

The “VIP’s” tumbled out of the bus like tourists and rushed to photograph one another, with the giant rocket a few hundred yards away in the background. But some just stood and looked.

I felt a kind of awe, but it was a purely theoretical awe; I had to remind myself: “This is it,” in order to experience any emotion. Visually, it was just another rocket, the kind you can see in any science-fiction movie or on any toy counter: a tall, slender shape of dead, powdery white against the white glare of the sky and the steel lacing of the service tower. There were sharp black lines encircling the white body at intervals—and our guide explained matter-of-factly that these marked the stages that would be burned off in tomorrow’s firings. This made the meaning of the rocket more real for an instant. But the fact that the lunar module, as he told us, was already installed inside the small, slanted part way on top of the rocket, just under the still smaller, barely visible spacecraft itself, would not become fully real; it seemed too small, too far away from us and, simultaneously, too close: I could not quite integrate it with the parched stubble of grass under our feet, with its wholesomely usual touches of litter, with the psychedelic colors of the shirts on the tourists snapping pictures.

Tomorrow, our guide explained, we would be sitting on bleachers three miles away; he warned us that the sound of the blast would reach us some seconds later than the sight, and assured us that it would be loud, but not unbearable.

I do not know that guide’s actual work at the Space Center, and I do not know by what imperceptible signs he gave me the impression that he was a man in love with his work. It was only that concluding remark of his, later, at the end of the tour, that confirmed my impression. In a certain way, he set, for me, the tone of the entire occasion: the sense of what lay under the surface of the seemingly commonplace activities.

My husband and I were staying in Titusville, a tiny frontier settlement—the frontier of science—built and inhabited predominantly by the Space Center’s employees. It was just like any small town, perhaps a little newer and cleaner—except that ten miles away, across the bluish spread of the Indian River, one could see the foggy, bluish, rectangular shape of the Space Center’s largest structure, the Vehicle Assembly Building, and, a little farther away, two faint vertical shafts: Apollo 11 and its service tower. No matter what one looked at, in that town, one could not really see anything else.

I noticed only that Titusville had many churches, too many, and that

they had incredible, modernistic forms. Architecturally, they reminded me of the more extreme types of Hollywood drive-ins: a huge, cone-shaped roof, with practically no walls to support it—or an erratic conglomeration of triangles, like a coral bush gone wild—or a fairy-tale candy-house, with S-shaped windows dripping at random like gobs of frosting. I may be mistaken about this, but I had the impression that here, on the doorstep of the future, religion felt out of place and this was the way it was trying to be modern.

Since all the motels of Titusville were crowded beyond capacity, we had rented a room in a private home: as their contribution to the great event, many of the local home owners had volunteered to help their Chamber of Commerce with the unprecedented flood of visitors. Our room was in the home of an engineer employed at the Space Center. It was a nice, gracious family, and one might have said a typical small-town family, except for one thing: a quality of cheerful openness, directness, almost innocence—the benevolent, unself-consciously self-confident quality of those who live in the clean, strict, reality-oriented atmosphere of science.

On the morning of July 16, we got up at 3 A.M. in order to reach the NASA Guest Center by 6 A.M., a distance that a car traveled normally in ten minutes. (Special busses were to pick up the guests at that Center, for the trip to the launching.) But Titusville was being engulfed by such a flood of cars that even the police traffic department could not predict whether one would be able to move through the streets that morning. We reached the Guest Center long before sunrise, thanks to the courtesy of our hostess who drove us there through twisting back streets.

On the shore of the Indian River, we saw cars, trucks, trailers filling every foot of space on both sides of the drive, in the vacant lots, on the lawns, on the river's sloping embankment. There were tents perched at the edge of the water; there were men and children sleeping on the roofs of station wagons, in the twisted positions of exhaustion; I saw a half-naked man asleep in a hammock strung between a car and a tree. These people had come from all over the country to watch the launching across the river, miles away. (We heard later that the same patient, cheerful human flood had spread through all the small communities around Cape Kennedy that night, and that it numbered one million persons.) I could not understand why these people would have such an intense desire to witness just a few brief moments; some hours later, I understood it.

It was still dark, as we drove along the river. The sky and the water were a solid spread of dark blue that seemed soft, cold and empty. But, framed by the motionless black leaves of the trees on the embankment, two things marked off the identity of the sky and the earth: far above, in

the sky, there was a single, large star; and, on earth, far across the river, two enormous sheaves of white light stood shooting motionlessly into the empty darkness from two tiny upright shafts of crystal that looked like glowing icicles: they were Apollo 11 and its service tower.

It was dark when a caravan of busses set out, at 7 A.M., on the journey to the Space Center. The light came slowly, beyond the steam-veiled windows, as we moved laboriously through back streets and back roads. No one asked any questions; there was a kind of tense solemnity about that journey, as if we were caught in the backwash of the enormous discipline of an enormous purpose and were now carried along on the power of an invisible authority.

It was full daylight—a broiling, dusty, hazy daylight—when we stepped out of the busses. The launch site looked big and empty like a desert; the bleachers, made of crude, dried planks, seemed small, precariously fragile and irrelevant, like a hasty footnote. Three miles away, the shaft of Apollo 11 looked a dusty white again, like a tired cigarette planted upright.

The worst part of the trip was that last hour and a quarter, which we spent sitting on wooden planks in the sun. There was a crowd of seven thousand people filling the stands, there was the cool, clear, courteous voice of a loudspeaker rasping into sound every few minutes, keeping us informed of the progress of the countdown (and announcing, somewhat dutifully, the arrival of some prominent government personage, which did not seem worth the effort of turning one's head to see), but all of it seemed unreal. The full reality was only the vast empty space, above and below, and the tired white cigarette in the distance.

The sun was rolling up and straight at our faces, like a white ball wrapped in dirty cotton. But beyond the haze, the sky was clear—which meant that we would be able to see the whole of the launching, including the firing of the second and third stages.

Let me warn you that television does not give any idea of what we saw. Later, I saw that launching again on color television, and it did not resemble the original.

The loudspeaker began counting the minutes when there were only five left. When I heard: "Three-quarters of a minute," I was up, standing on the wooden bench, and do not remember hearing the rest.

It began with a large patch of bright, yellow-orange flame shooting sideways from under the base of the rocket. It looked like a normal kind of flame and I felt an instant's shock of anxiety, as if this were a building on fire. In the next instant, the flame and the rocket were hidden by such a sweep of dark-red fire that the anxiety vanished: this was not part of any normal experience and could not be integrated with anything. The dark-

red fire parted into two gigantic wings, as if a hydrant were shooting streams of fire outward and up, toward the zenith—and between the two wings, against a pitch-black sky, the rocket rose slowly, so slowly that it seemed to hang still in the air, a pale cylinder with a blinding oval of white light at the bottom, like an upturned candle with its flame directed at the earth. Then I became aware that this was happening in total silence, because I heard the cries of birds winging frantically away from the flames. The rocket was rising faster, slanting a little, its tense white flame leaving a long, thin spiral of bluish smoke behind it. It had risen into the open blue sky, and the dark-red fire had turned into enormous billows of brown smoke, when the sound reached us: it was a long, violent crack, not a rolling sound, but specifically a cracking, grinding sound, as if space were breaking apart, but it seemed irrelevant and unimportant, because it was a sound from the past and the rocket was long since speeding safely out of its reach—though it was strange to realize that only a few seconds had passed. I found myself waving to the rocket involuntarily, I heard people applauding and joined them, grasping our common motive; it was impossible to watch passively, one had to express, by some physical action, a feeling that was not triumph, but more: the feeling that that white object's unobstructed streak of motion was the only thing that mattered in the universe. The rocket was almost above our heads when a sudden flare of yellow-gold fire seemed to envelop it—I felt a stab of anxiety, the thought that something had gone wrong, then heard a burst of applause and realized that this was the firing of the second stage. When the loud, space-cracking sound reached us, the fire had turned into a small puff of white vapor, floating away. At the firing of the third stage, the rocket was barely visible; it seemed to be shrinking and descending; there was a brief spark, a white puff of vapor, a distant crack—and when the white puff dissolved, the rocket was gone.

These were the seven minutes.

What did one feel afterward? An abnormal, tense overconcentration on the commonplace necessities of the immediate moment, such as stumbling over patches of rough gravel, running to find the appropriate guest bus. One had to overconcentrate, because one knew that one did not give a damn about anything, because one had no mind and no motivation left for any immediate action. How do you descend from a state of pure exaltation?

What we had seen, in naked essentials—but in reality, not in a work of art—was the concretized abstraction of man's greatness.

The meaning of the sight lay in the fact that when those dark-red wings of fire flared open, one knew that one was not looking at a normal occur-

rence, but at a cataclysm which, if unleashed by nature, would have wiped man out of existence—and one knew also that this cataclysm was planned, unleashed and *controlled* by man, that this unimaginable power was ruled by *his* power and, obediently serving his purpose, was making way for a slender, rising craft. One knew that this spectacle was not the product of inanimate nature, like some aurora borealis, nor of chance, nor of luck, that it was unmistakably human—with “human,” for once, meaning *grandeur*—that a purpose and a long, sustained, disciplined effort had gone to achieve this series of moments, and that man was succeeding, succeeding, succeeding! For once, if only for seven minutes, the worst among those who saw it had to feel—not “How small is man by the side of the Grand Canyon!”—but “How great is man and how safe is nature when he conquers it!”

That we had seen a demonstration of man at his best, no one could doubt—this was the cause of the event’s attraction and of the stunned, numbed state in which it left us. And no one could doubt that we had seen an achievement of man in his capacity as a rational being—an achievement of reason, of logic, of mathematics, of total dedication to the absolutism of reality. How many people would connect these two facts, I do not know.

The next four days were a period torn out of the world’s usual context, like a breathing spell with a sweep of clean air piercing mankind’s lethargic suffocation. For thirty years or longer, the newspapers had featured nothing but disasters, catastrophes, betrayals, the shrinking stature of men, the sordid mess of a collapsing civilization; their voice had become a long, sustained whine, the megaphone of failure, like the sound of an oriental bazaar where leprous beggars, of spirit or matter, compete for attention by displaying their sores. Now, for once, the newspapers were announcing a human achievement, were reporting on a human triumph, were reminding us that man still exists and functions as man.

Those four days conveyed the sense that we were watching a magnificent work of art—a play dramatizing a single theme: the efficacy of man’s mind. One after another, the crucial, dangerous maneuvers of Apollo 11’s flight were carried out according to plan, with what appeared to be an effortless perfection. They reached us in the form of brief, rasping sounds relayed from space to Houston and from Houston to our television screens, sounds interspersed with computerized figures, translated for us by commentators who, for once, by contagion, lost their usual manner of snide equivocation and spoke with compelling clarity.

The most confirmed evader in the world-wide audience could not escape the fact that these sounds announced events taking place far beyond the

earth's atmosphere—that while he moaned about his loneliness and “alienation” and fear of entering an unknown cocktail party, three men were floating in a fragile capsule in the unknown darkness and loneliness of space, with earth and moon suspended like little tennis balls behind and ahead of them, and with their lives suspended on the microscopic threads connecting numbers on their computer panels in consequence of the invisible connections made well in advance by man's brain—that the more effortless their performance appeared, the more it proclaimed the magnitude of the effort expended to project it and achieve it—that no feelings, wishes, urges, instincts or lucky “conditioning,” neither in these three men nor in all those behind them, from highest thinker to lowliest laborer who touched a bolt of that spacecraft, could have achieved this incomparable feat—that we were watching the embodied concretization of a single faculty of man: his rationality.

There was an aura of triumph about the entire mission of Apollo 11, from the perfect launch to the climax. An assurance of success was growing in the wake of the rocket through the four days of its moon-bound flight. No, not because success was guaranteed—it is never guaranteed to man—but because a progression of evidence was displaying the precondition of success: *these men know what they are doing*.

No event in contemporary history was as thrilling, here on earth, as three moments of the mission's climax: the moment when, superimposed over the image of a garishly colored imitation-module standing motionless on the television screen, there flashed the words: “Lunar module has landed”—the moment when the faint, gray shape of the actual module came shivering from the moon to the screen—and the moment when the shining white blob which was Neil Armstrong took his immortal first step. At this last, I felt one instant of unhappy fear, wondering what he would say, because he had it in his power to destroy the meaning and the glory of that moment, as the astronauts of Apollo 8 had done in their time. He did not. He made no reference to God; he did not undercut the rationality of his achievement by paying tribute to the forces of its opposite; he spoke of man. “That's one small step for a man, one giant leap for mankind.” So it was.

As to my personal reaction to the entire mission of Apollo 11, I can express it best by paraphrasing a passage from *Atlas Shrugged* that kept coming back to my mind: “Why did I feel that joyous sense of confidence while watching the mission? In all of its giant course, two aspects pertaining to the inhuman were radiantly absent: the causeless and the purposeless. Every part of the mission was an embodied answer to ‘Why?’ and ‘What for?’—like the steps of a life-course chosen by the sort of mind I

worship. The mission was a moral code enacted in space.”

Now, coming back to earth (as it is at present), I want to answer briefly some questions that will arise in this context. Is it proper for the government to engage in space projects? No, it is not—except insofar as space projects involve military aspects, in which case, and to that extent, it is not merely proper, but mandatory. Scientific research as such, however, is not the proper province of the government.

But this is a political issue; it pertains to the money behind the lunar mission or to the method of obtaining that money, and to the project's administration; it does not affect the nature of the mission as such, it does not alter the fact that this was a superlative technological achievement.

In judging the effectiveness of the various elements involved in any large-scale undertaking of a mixed economy, one must be guided by the question: which elements were the result of coercion and which the result of freedom? It is not coercion, not the physical force or threat of a gun, that created Apollo 11. The scientists, the technologists, the engineers, the astronauts were free men acting of their own choice. The various parts of the spacecraft were produced by private industrial concerns. Of all human activities, science is the field least amenable to force: the facts of reality do not take orders. (This is one of the reasons why science perishes under dictatorships, though technology may survive for a short while.)

It is said that without the “unlimited” resources of the government, such an enormous project would not have been undertaken. No, it would not have been—at *this time*. But it would have been, when the economy was ready for it. There is a precedent for this situation. The first transcontinental railroad of the United States was built by order of the government, on government subsidies. It was hailed as a great achievement (which, in some respects, it was). But it caused economic dislocations and political evils, for the consequences of which we are paying to this day in many forms.

If the government deserves any credit for the space program, it is only to the extent that it did not act as a government, i.e., did not use coercion in regard to its participants (which it used in regard to its backers, i.e., the taxpayers). And what is relevant in this context (but is not to be taken as a justification or endorsement of a mixed economy) is the fact that of all our government programs, the space program is the cleanest and best: it, at least, has brought the American citizens a return on their forced investment, it has worked for its money, it has earned its keep; which cannot be said about any other program of the government.

There is, however, a shameful element in the ideological motivation (or the publicly alleged motivation) that gave birth to our space program:

John F. Kennedy's notion of a space competition between the United States and Soviet Russia.

A competition presupposes some basic principles held in common by all the competitors, such as the rules of the game in athletics, or the functions of the free market in business. The notion of a competition between the United States and Soviet Russia in any field whatsoever, is obscene: they are incommensurable entities, intellectually and morally. What would you think of a competition between a doctor and a murderer to determine who could affect the greatest number of people? Or: a competition between Thomas A. Edison and Al Capone to see who could get rich quicker?

The fundamental significance of Apollo 11's triumph is not political; it is philosophical; specifically, moral-epistemological.

The lunar landing as such was not a milestone of science, but of technology. Technology is an applied science, i.e., it translates the discoveries of theoretical science into practical application to man's life. As such, technology is not the first step in the development of a given body of knowledge, but the last; it is not the most difficult step, but it is the ultimate step, the implicit purpose, of man's quest for knowledge.

The lunar landing was not the greatest achievement of science, but its greatest visible result. The greatest achievements of science are invisible: they take place in a man's mind; they occur in the form of a connection integrating a broad range of phenomena. The astronaut of an earlier mission who remarked that his spacecraft was driven by Sir Isaac Newton, understood this issue. (And if I may be permitted to amend that remark, I would say that Sir Isaac Newton was the copilot of the flight; the pilot was Aristotle.) In this sense, the lunar landing was a first step, a beginning, in regard to the moon, but it was a last step, an end product, in regard to the earth—the end product of a long, intellectual-scientific development.

This does not diminish in any way the intellectual stature, power or achievement of the technologists and the astronauts; it merely indicates that they were the worthy recipients of an illustrious heritage, who made full use of it by the exercise of their own individual ability. (The fact that man is the only species capable of transmitting knowledge and thus capable of progress, the fact that man can achieve a division of labor, and the fact that large numbers of men are required for a large-scale undertaking, do not mean what some creeps are suggesting: that achievement has become collective.)

I am not implying that all the men who contributed to the flight of Apollo 11 were necessarily rational in every aspect of their lives or convictions. But in their various professional capacities—each to the extent

that he did contribute to the mission—they had to act on the principle of strict rationality.

The most inspiring aspect of Apollo 11's flight was that it made such abstractions as rationality, knowledge, science perceivable in direct, immediate experience. That it involved a landing on another celestial body was like a dramatist's emphasis on the dimensions of reason's power: it is not of enormous importance to most people that man lands on the moon; but that man *can* do it, is.

This was the cause of the world's response to the flight of Apollo 11.

Frustration is the leitmotif in the lives of most men, particularly today—the frustration of inarticulate desires, with no knowledge of the means to achieve them. In the sight and hearing of a crumbling world, Apollo 11 enacted the story of an audacious purpose, its execution, its triumph and the means that achieved it—the story and the demonstration of man's highest potential. Whatever his particular ability or goal, if a man is not to give up his struggle, he needs the reminder that success is possible; if he is not to regard the human species with fear, contempt or hatred, he needs the spiritual fuel of knowing that man the hero is possible.

This was the meaning and the unidentified motive of the millions of eager, smiling faces that looked up to the flight of Apollo 11, from all over the remnants and ruins of the civilized world. This was the meaning that people sensed, but did not know in conscious terms—and will give up or betray tomorrow. It was the job of their teachers, the intellectuals, to tell them. But it is not what they are being told.

A great event is like an explosion that blasts off pretenses and brings the hidden out to the surface, be it diamonds or muck. The flight of Apollo 11 was "a moment of truth": it revealed an abyss between the physical sciences and the humanities that has to be measured in terms of interplanetary distances. If the achievements of the physical sciences have to be watched through a telescope, the state of the humanities requires a microscope: there is no historical precedent for the smallness of stature and shabbiness of mind displayed by today's intellectuals.

In *The New York Times* of July 21, 1969, there appeared two whole pages devoted to an assortment of reactions to the lunar landing, from all kinds of prominent and semi-prominent people who represent a cross section of our culture.

It was astonishing to see how many ways people could find to utter variants of the same bromides. Under an overwhelming air of staleness, of pettiness, of musty meanness, the collection revealed the naked essence (and spiritual consequences) of the basic premises ruling today's culture: irrationalism—altruism—collectivism.

The extent of the hatred for reason was somewhat startling. (And, psychologically, it gave the show away: one does not hate that which one honestly regards as ineffectual.) It was, however, expressed indirectly, in the form of denunciations of technology. (And since technology is the means of bringing the benefits of science to man's life, judge for yourself the motive and the sincerity of the protestations of concern with human suffering.)

"But the chief reason for assessing the significance of the moon landing negatively, even while the paeans of triumph are sung, is that this tremendous technical achievement represents a defective sense of human values, and of a sense of priorities of our technical culture." "We are betraying our moral weakness in our very triumphs in technology and economics." "How can this nation swell and stagger with technological pride when it is so weak, so wicked, so blinded and misdirected in its priorities? While we can send men to the moon or deadly missiles to Moscow or toward Mao, we can't get foodstuffs across town to starving folks in the teeming Ghettos." "Are things more important than people? I simply do not believe that a program comparable to the moon landing cannot be projected around poverty, the war, crime, and so on." "If we show the same determination and willingness to commit our resources, we can master the problems of our cities just as we have mastered the challenge of space." "In this regard, the contemporary triumphs of man's mind—his ability to translate his dreams of grandeur into awesome accomplishments—are not to be equated with progress, as defined in terms of man's primary concern with the welfare of the masses of fellow human beings . . . the power of human intelligence which was mobilized to accomplish this feat can also be mobilized to address itself to the ultimate acts of human compassion." "But, the most wondrous event would be if man could relinquish all the stains and defilements of the untamed mind . . ."

There was one entirely consistent person in that collection, Pablo Picasso, whose statement, in full, was: "It means nothing to me. I have no opinion about it, and I don't care." His work has been demonstrating that for years.

The best statement was, surprisingly, that of the playwright Eugene Ionesco, who was perceptive about the nature of his fellow intellectuals. He said, in part: "It's an extraordinary event of incalculable importance. The sign that it's so important is that most people aren't interested in it. They go on discussing riots and strikes and sentimental affairs. The perspectives opened up are enormous, and the absence of interest shows an astonishing lack of good-will. I have the impression that writers and intellectuals—men of the left—are turning their backs to the event." This is an

honest statement—and the only pathetic (or terrible) thing about it is the fact that the speaker has not observed that “men of the left” are not “most people.”

Now consider the exact, specific meaning of the evil revealed in that collection: it is the *moral* significance of Apollo 11 that is being ignored, it is the *moral stature* of the astronauts—and of all the men behind them and of all achievement—that is being denied. Think of what was required to achieve that mission: think of the unself-pitying effort; the merciless discipline; the courage; the responsibility of relying on one’s judgment; the days, nights and years of unswerving dedication to a goal; the tension of the unbroken maintenance of a full, clear mental focus; and the honesty (honesty means: loyalty to truth, and truth means: the recognition of reality). All these are not regarded as virtues by the altruists and are treated as of no moral significance.

Now perhaps you will grasp the infamous inversion represented by the morality of altruism.

Some people accused me of exaggeration when I said that altruism does not mean mere kindness or generosity, but the sacrifice of the best among men to the worst, the sacrifice of virtues to flaws, of ability to incompetence, of progress to stagnation—and the subordinating of all life and of all values to the claims of anyone’s suffering.

You have seen it enacted in reality.

What else is the meaning of the brazen presumption of those who protest against the mission of Apollo 11, demanding that the money (which is not theirs) be spent, instead, on the relief of poverty?

This is not an old-fashioned protest against mythical tycoons who “exploit” their workers, it is not a protest against the rich, it is not a protest against idle luxury, it is not a plea for some marginal charity, for money that “no one would miss.” It is a protest against science and progress, it is the impertinent demand that man’s mind cease to function, that man’s ability be denied the means to move forward, that achievement stop—because the poor hold a first mortgage on the lives of their betters.

By their own assessment, by demanding that the public support them, these protesters declare that they have not produced enough to support themselves—yet they present a claim on the men whose ability produced so enormous a result as Apollo 11, declaring that it was done at *their* expense, that the money behind it was taken from *them*. Led by their spiritual equivalents and spokesmen, they assert a private right to public funds, while denying the public (i.e., the rest of us) the right to any higher, better purpose.

I could remind them that without the technology they damn, there

would be no means to support them. I could remind them of the pre-technological centuries when men subsisted in such poverty that they were unable to feed themselves, let alone give assistance to others. I could say that anyone who used one-hundredth of the mental effort used by the smallest of the technicians responsible for Apollo 11, would not be consigned to permanent poverty, not in a free or even semi-free society. I could say it, but I won't. It is not their practice that I challenge, but their moral premise. Poverty is not a mortgage on the labor of others—misfortune is not a mortgage on achievement—failure is not a mortgage on success—suffering is not a claim check, and its relief is not the goal of existence—man is not a sacrificial animal on anyone's altar nor for anyone's cause—life is not one huge hospital.

Those who suggest that we substitute a war on poverty for the space program, should ask themselves whether the premises and values that form the character of an astronaut would be satisfied by a lifetime of carrying bedpans and teaching the alphabet to the mentally retarded. The answer applies as well to the values and premises of the astronauts' admirers. Slums are not a substitute for stars.

The question we are constantly hearing today is: why are men able to reach the moon, but unable to solve their social-political problems? This question involves the abyss between the physical sciences and the humanities. The flight of Apollo 11 has made the answer obvious: because, in regard to their social problems, men reject and evade the means that made the lunar landing possible, the only means of solving any problem—reason.

In the field of technology, men cannot permit themselves the kind of mental processes that have been demonstrated by some of the reactions to Apollo 11. In technology, there are no gross irrationalities such as the conclusion that since mankind was united by its enthusiasm for the flight, it can be united by anything (as if the ability to unite were a primary, regardless of purpose or cause). There are, in technology, no evasions of such magnitude as the present chorus of slogans to the effect that Apollo 11's mission should somehow lead men to peace, good will and the realization that mankind is one big family. What family? With one-third of mankind enslaved under an unspeakable rule of brute force, are we to accept the rulers as members of the family, make terms with them and sanction the terrible fate of the victims? If so, why are the victims to be expelled from the one big human family? The speakers have no answer. But their implicit answer is: We could make it work somehow, if we *wanted* to!

In technology, men know that all the wishes and prayers in the world will not change the nature of a grain of sand.

It would not have occurred to the builders of the spacecraft to select its materials without the most minute, exhaustive study of their characteristics and properties. But, in the humanities, every sort of scheme or project is proposed and carried out without a moment's thought or study of the nature of man. No instrument was installed aboard the spacecraft without a thorough knowledge of the conditions its functions required. All kinds of impossible, contradictory demands are imposed on man, in the humanities, with no concern for the conditions of existence he requires. No one tore apart the circuits of the spacecraft's electric system and declared: "It will do the job if it *wants* to!" This is the standard policy in regard to man. No one chose a type of fuel for Apollo 11 because he "felt like it," or ignored the results of a test because he "didn't feel like it," or programmed a computer with a jumble of random, irrelevant nonsense he "didn't know why." These are the standard procedures and criteria accepted in the humanities. No one made a decision affecting the spacecraft, by hunch, by whim, or by sudden, inexplicable "intuition." In the humanities, these methods are regarded as superior to reason. No one proposed a new design for the spacecraft, worked out in every detail, except that it had no provision for rockets or for any means of propulsion. It is the standard practice in the humanities to devise and design social systems controlling every aspect of man's life, except that no provision is made for the fact that man possesses a mind and that his mind is his means of survival. No one suggested that the flight of Apollo 11 be planned according to the rules of astrology, and its course be charted by the rules of numerology. In the humanities, man's nature is interpreted according to Freud, and his social course is prescribed by Marx.

But—the practitioners of the humanities protest—we cannot treat man as an inanimate object. The truth of the matter is that they treat man as *less* than an inanimate object, with less concern, less respect for his nature. If they gave to man's nature a small fraction of the meticulous, *rational* study that the scientists are now giving to lunar dust, we would be living in a better world. No, the specific procedures for studying man are not the same as for studying inanimate objects—but the epistemological principles, are.

Nothing on earth or beyond it is closed to the power of man's reason. Yes, reason could solve human problems—but nothing else on earth or beyond it, can.

This is the fundamental lesson to be learned from the triumph of Apollo 11. Let us hope that some men will learn it. But it will not be learned by most of today's intellectuals, since the core and motor of all their incredible constructs is the attempt to establish human tyranny as an escape

from what they call "the tyranny" of reason and reality.

If the lesson is learned in time, the flight of Apollo 11 will be the first achievement of a great new age; if not, it will be a glorious last—not forever, but for a long, long time to come.

I want to mention one small incident, an indication of why achievement perishes under altruist-collectivist rule. One of the ugliest aspects of altruism is that it penalizes the good for being the good, and success for being success. We have seen that, too, enacted in reality.

It is obvious that one of the reasons motivating the NASA administrators to achieve a lunar landing was the desire to demonstrate the value of the space program and receive financial appropriations to continue the program's work. This was fully rational and proper for the managers of a government project: there is no honest way of obtaining public funds except by impressing the public with a project's actual results. But such a motive involves an old-fashioned kind of innocence; it comes from an implicit free-enterprise context, from the premise that rewards are to be earned by achievement, and that achievement is to be rewarded. Apparently, they had not grasped the modern notion, the basic premise of the welfare state: that rewards are divorced from achievement, that one obtains money from the government by giving nothing in return, and the more one gets, the more one should demand.

The response of Congress to Apollo 11 included some prominent voices who declared that NASA's appropriations should be cut *because* the lunar mission has succeeded.(!) The purpose of the years of scientific work is completed, they said, and "national priorities" demand that we now pour more money down the sewers of the war on poverty.

If you want to know the process that embitters, corrupts and destroys the managers of government projects, you are seeing it in action. I hope that the NASA administrators will be able to withstand it.

As far as "national priorities" are concerned, I want to say the following: we do not have to have a mixed economy, we still have a chance to change our course and thus to survive. But if we do continue down the road of a mixed economy, then let them pour all the millions and billions they can into the space program. If the United States is to commit suicide, let it not be for the sake and support of the worst human elements, the parasites-on-principle, at home and abroad. Let it not be its only epitaph that it died paying its enemies for its own destruction. Let some of its life-blood go to the support of achievement and the progress of science. The American flag on the moon—or on Mars, or on Jupiter—will, at least, be a worthy monument to what had once been a great country.