

THE MESSAGE OF PROMETHEAS

(a talk by Achilles G. Adamantiades to the Hellenic Society Prometheas, of the Metropolitan Washington Area, December 3, 1998)

Introduction

I am pleased to accept the invitation to speak to you about Prometheus, the symbol of your Association. You have made a judicious choice: from the beginning of mythological time, when humans acquired the ability to fashion legends out of the happenings of their life and of the questions of their mind, few figures, real or mythical, have survived to this date with the clarity and power of Prometheus. He is a Greek God himself with a life full of adventure and excitement. Undoubtedly, the fantastic story of his life was the beloved subject of innumerable storytellers -- grandfathers and grandmothers, traveling troubadours and school teachers, who passed it from generation to generation with awe and admiration.

The Legend of Prometheus

Let us pick up the thread of Prometheus' life following Hesiod's narrative in his book "Work and Days." The story attributes the making of man to Prometheus, whose father Iapetus, together with Cronus, had opposed the sovereignty of Jupiter. But, in that conflict, Prometheus had espoused the cause of the Olympian gods. To Prometheus, gifted with prophetic vision as his name indicates, and his brother Epimetheus, whose name means, by contrast, hind vision, was now given the duty of making man and providing him and all other animals with the faculties necessary for their survival. Prometheus was to oversee the work of Epimetheus, who proceeded to bestow upon the various animals the gift of strength, swiftness and sagacity; wings to one, claws to another, a hard protective shell to a third. But Prometheus outdid his brother -- taking earth and kneading it with water, he made man in the image of the gods. He gave him an upright stature (anthropos means looking upward) so that, while other animals turn their faces downward, man gazes on the stars. Then, when Epimetheus, always rash and thoughtful when too late, had been so prodigal of his gifts to animals that no blessing was left for the noblest of creatures, Prometheus ascended to heaven, lighted his torch at the chariot of the sun and brought fire down to earth. With fire in his possession, man would be able to learn the secrets of the earth, utilize her treasures and develop commerce, science and the arts. Still following the narrative of Hesiod, an Age of Gold followed, during which truth and right prevailed though not enforced by law, and though there was no one in authority to threaten or to punish. The forests were unspoiled, and men had not built fortifications around their towns. There were no such things as swords, spears, or helmets. The earth brought forth all things necessary for man without any labor in plowing or sowing. Perpetual spring reigned, flowers sprang up without seed, the rivers flowed with milk and wine, and yellow honey distilled from the oaks.

The Silver Age came next, inferior to the Golden. Jupiter shortened the spring and divided the years into seasons. Then, men suffered the extremes of heat and cold and houses

became necessary. Caves were their dwellings and leafy coverts of the woods and huts woven of twigs. To produce crops, the farmer was obliged to sow the seed and the ox to draw the plow. This was a race of manly men, but insolent and impious. And when they died, Jupiter made them ghosts of the underworld but withheld the privilege of immortal life.

During this age, when, as Hesiod says, the altars of the blessed were neglected, and the gods were denied their due, Prometheus stood forth -- the champion of man against the Olympians.

The saga continues as the plot thickens. Jupiter begrudges the mortals the use of fire and is, in fact, contemplating their annihilation and the creation of a new race. During a dispute among gods and men concerning the prerogatives of each, Prometheus deceives Jupiter offering him a tricky choice of parts of a sacrificial bull. Jupiter uses the insult as an excuse for punishing mankind and deprives the race of fire. But Prometheus regains the treasure, stealing it from heaven in a hollow tube.

Doubly enraged, Jupiter, in his turn, had recourse to a stratagem. He planned for man a curse in the shape of a woman. How the human race had persisted to that time without a woman is a mystery that only the Greeks can explain. Nevertheless, the bewitching creature was fashioned in heaven, properly enough, and every god and goddess contributed something to her perfection. One gave her beauty, another persuasive charm, a third the faculty of music. They named her Pandora, "the gift of all the gods." Thus equipped, she was conveyed to earth and presented to Epimetheus who, without hesitation, accepted the gift though cautioned by his brother to beware of Jupiter and all his ways. Prometheus' advice should have been taken seriously; in the hand of Pandora was placed by the immortals a casket or vase which she was forbidden to open. But curiosity got the better of Pandora and one day she lifted the cover. Immediately there escaped and scattered around a multitude of plagues: gout, rheumatism, and colic for his body; envy, spite and revenge for his mind. Pandora wished to replace the lid; but, alas! it was too late! One thing only remained in the casket -- its name was "hope."

As for Prometheus, because of his unselfish devotion to the cause of humanity, he drew upon his head the wrath of the Olympian father by whose order he was chained on a rock of the Caucasus suffering the lashing of wind, hunger, solitude, and loss of freedom. An eagle or vulture preyed for endless ages upon his liver without, however, succeeding in consuming it. This state of torment could have been brought to an end at any time by Prometheus if he had been willing to submit to his oppressor; for he possessed a secret crucial to the stability of Jupiter's throne. A certain woman would beget Jupiter a son who should displace him and end the reign of the Olympians. But to reveal the secret Prometheus disdained. He knew that in the thirteenth generation, there should arrive a hero -- sprung for Jove himself to release him. And in the fullness of time the hero did arrive; none other than the mighty Hercules, aspiring to render the highest service to mankind.

The Greeks have a special reason for gratitude to Prometheus: following a huge flood through which Jupiter attempted to destroy a decadent mankind, two upright human beings were

saved on Mount Parnassus -- Deucalion, son of Prometheus and his wife Pyrrha, daughter of Epimetheus, gave birth to Hellen who became the ancestor of the Hellenes or Greeks

The Legend of Prometheus in History and Culture

It is no wonder the story of Prometheus has captured the imagination of writers, poets, musicians and artists throughout the ages. Aeschylus was the first great dramatist to grasp the tragic import of the story, which you will hear later tonight. His dramatic genius immortalized Prometheus plight into a metaphor of suffering. In his play, "Prometheus Bound" the first of a trilogy, he tackles one of the hardest philosophical and religious problems of all time: What is the nature of divine power? If divine power is benevolent, why is it then that man suffers? Why is there evil in the world? Goethe and Shelley borrowed the theme for their own dramas, as they reinterpreted the myth in the context of the philosophical, sociological and political terms of their times; Beethoven and Scriabin found inspiration in the dramatic narrative and its sequel as they rendered it in romantic musical terms. and in the arts, Prometheus bound is the subject of many a colorful canvas. To the present day, we use the term "Promethean" to describe feats larger than life, acts of vision, courage, and defiance, a character of conviction and strength; or the suffering for noble causes.

Interpretation of the Legend

Why is it then that the myth of Prometheus has survived to this day so vividly vibrant, so powerfully evocative, so resonant of themes that are relevant to modern life and mind? Here are the elements of the myth: the creation of man and the dedication to his future by the granting of fire; a willing sacrifice and endurance of suffering; persistence, tenacity, and a strong sense of purpose; a liver devoured but constantly regenerated; and finally, resolution of the conflict and conciliation. Let me elaborate on these themes and offer some interpretations.

1. Prometheus as Harbinger of Scientific and Technological Advance

Undoubtedly, the moment primitive man discovered the use of fire, a natural and threatening event up to that moment, caused by lightning in the forest or spontaneous ignition, was one of the greatest points in the history of civilization. Using, rather than merely observing fire, allowed for countless applications -- burning wood for heating and cooking, smelting of ores for the production of metals, etc.

Continuous, albeit slow progress was accomplished over thousands of years as humans learned to modify their environment by building shelters, organizing villages and towns, making bronze and iron, as the names of corresponding eras of human development indicate, building ships and vehicles, and alas, manufacturing more and more powerful and effective weapons with which to fight each other. Aeschylus describes Prometheus' gifts to humankind with poetic eloquence and genuine admiration:

"For men at first had eyes but saw to no purpose; they had ears but did not hear. Like the shapes of dreams they dragged through their long lives and handled all things in bewilderment

and confusion. They did not know of building houses with bricks to face the sun; they did not know how to work in wood. They lived like swarming ants in holes in the ground, in the sunless caves of the earth. For them there was no secure token by which to tell winter nor the flowering spring nor the summer with its crops; all their doings were indeed without intelligent calculation until I showed them the rising of the stars, and the settings, hard to observe. And further I discovered to them numbering, pre-eminent among subtle devices, and the combining of letters as a means of remembering all things, the Muses' mother, skilled in craft. It was I who first yoked beasts for them in the yokes and made of those beasts the slaves of trace chain and pack saddle that they might be man's substitute in the hardest tasks; and I harnessed to the carriage, so that they loved the rein, horses, the crowning pride of the rich man's luxury. It was I and none other who discovered ships, the sail-driven wagons that the sea buffets. Such were the contrivances that I discovered for men -- alas for me! For I myself am without contrivance to rid myself of my present affliction."

All this was taking place in prehistoric times. Later on, during the high period of Ancient Greece, in the 5th and 4th centuries B.C., and for the first time in human history, natural phenomena, including those occurring in the human body, became the object of rational analysis and scientific investigation. Explanations were sought in the establishment of immutable laws of nature, rather than in the power of the supernatural. A radical transition has occurred: from the divination of the pagan priests to natural science, from superstition to rational thought and discourse.

The rate of scientific and technological evolution has been accelerated phenomenally in our times. People of my generation finished high school when there was no television, computers, and jet-engine transportation; not to mention the myriad of other inventions and products that have revolutionized our lifestyle. Today a microchip, the size of a button, packs a million transistors and can perform a number of calculations now approaching one trillion per second.

Such profound discoveries and their rapid introduction into technological application have had an enormous and unprecedented impact on everyday life, not least in the state of our health and general wellbeing through advances in medical knowledge, new pharmaceuticals and novel medical technology. For example, a recent report of the World Bank has found that over the past 40 years, life expectancy has improved more than during the entire previous span of history. About 100 years ago, life expectancy in the US, then the world's richest country, was only 49 years and child mortality 180 per 1,000. By 1950, life expectancy in the US had increased to 66 years and child mortality had fallen to 34 per 1,000. Today, life expectancy in a developed, high-income country is more than 75 years. In developing countries, life expectancy is not nearly as high but has also increased dramatically.

The fight against disease has been equally heroic and triumphantly successful. In 1967, the year when a special intensified smallpox eradication program began, between 1.5 and 2.0 million people died in a year from smallpox. Perhaps 1/2 million more were blinded, and more than 10 million were seriously and permanently disfigured. In the early 1950s the victims of smallpox had been three to four times higher. By 1969, the disease had been eradicated. This

accomplishment exemplifies the potential of modern medicine as, over the past 50 years the world has seen startling improvements in health. These were accomplished through progress in drugs and vaccines, epidemiological knowledge and increased organizational experience. If Prometheus could take a global view of the progress in human health today, a result of his original daring and defiant act, he would be exceedingly glad.

2. Prometheus as a Symbol of Willing Sacrifice

Such advances do not come easy. I am sure that all of you are convinced that outstanding accomplishment comes only as a result of long and often tedious hours of preparation, sleepless nights, persistence in pursuing a goal, single-minded dedication and sheer physical endurance. Perhaps more important and valuable than these are the painful sacrifices a dedicated worker must make in personal, family and social life and even career advancement when he or she determines to pursue the dictates of conscience and the pursuit of truth rather than to please superiors. History is replete with cases of honest citizens who confronted established opinion and the status quo with their own force of conviction. Fortunately, a few times, such persons prevail in their struggle. They might as well be called Promethean. Says Prometheus in Aeschylus' drama:

"I gave to mortal man a precedence over myself in pity: I can win no pity: pitiless is he that thus chastises me, a spectacle bringing dishonor on the name of Zeus."

3. Zeus as a Symbol of the Anti Technology Movement

But if we understand Prometheus' mind, what about Jupiter? Why was Jupiter so irked at Prometheus? Why did he punish him so harshly? Is he simply exercising authority by brute force? Is there anything deeper in his motivation? There may be a possible explanation: Jupiter thought that the use of fire and the skills of technology would lead mankind to ruin.

It would indeed be utterly naive to think that the fruits of scientific knowledge and the uses of technology are an unalloyed blessing. Today, we know better: rapid and destructive use of natural resources, environmental degradation, including polluted seas and poisoned rivers, foul air in congested cities, the rise and fall of industrial towns, massive oil spills in the oceans, and more frightening of all, lethal weapons for mass destruction of human beings are also the legacy of the misuse of science and technology.

Those of us who work in developing countries, as well as in the economies in transition, have the dubious privilege of observe at close range the devastating effects of uncontrolled industrialization and unregulated industrial growth. Witness the 1986 accident at Chernobyl, the massive oil spill in the Russian tundra a few years ago, threatening the Pechora River with massive pollution, the Exxon Valdez disaster in Alaska; the deforestation of sub-Saharan Africa and worst of all, the use of modern weapons in local tribal and ethnic wars, just to mention a few of the recent or current tragedies. Perhaps more ominous than these local effects are the emerging threats to the global environment, particularly the hole in the ozone layer, loss of biodiversity, and the potential climate warming from accelerating releases into the atmosphere of

carbon dioxide, methane and other greenhouse gases. It would be a very long list indeed if we were to give an exhaustive account of all major concerns raised in human societies and over the globe that are in one way or another related if not outright caused by technological advances.

Medicine is not exempt from this perplexing conundrum. For example: to what extent is the use of high-tech medicine justified to prolong biological life? Shouldn't the extension of biological life be matched by quality of life? Who is to bear the very high cost of such high-tech interventions? How do we balance the health needs of developed, high-income countries with the health needs of much poorer countries? How do we integrate general wellbeing that includes psychological and social factors into the care of physical well being? Do we have the individual and collective wisdom to deal with the ethical problems of the Brave New World of genetic engineering and high-tech medicine?

There is no escaping the fact that scientific knowledge and technological progress is a double-edged sword. It is the same fire obtained from Prometheus that can keep us warm in winter or burn the house down. It is the same petroleum that fuels the fire of modern industrial society but can also be spilled in the ocean, wreaking havoc in ecological systems and local economies. And it is the same nuclear science that can work wonders in nuclear diagnostic and therapeutic medicine or produce useful energy but, in the hands of careless or mischievous people, contaminates with radioactivity. Jupiter evidently had some doubts as to the sanity of humans. He may have had a point. Had he been alive today(!), I suspect he would be the patron saint of Greenpeace!

4. Prometheus as a Paragon of Persistence and Tenacity

In spite of Jupiter's ferocity, Prometheus seemed determined to the end. This appears to me as a metaphor of mankind's persistence and tenacity; the movement of mankind forward has its own inherent dynamic and, simply, cannot be prevented. Hercules speaks thusly to the great Titan in the homonymous drama of George Cabot Lodge:

*“The soul of man can never be enslaved
save by its own infirmities, nor freed
save by its very strength and own resolve
and constant vision and supreme endeavor!”*

Mankind is indeed a hardy sort. With alternating ups and downs, certainly with many defeats but also with great victories, now successful and now set back, mankind plods undauntedly ahead. It meets any challenge, overcomes any obstacle, suffers many sacrifices; accepts no prohibition. In the process, it may suffer great losses and severe pain, in Promethean style, but it persists and survives. Mankind will even rise from its ashes as another powerful myth, that of the Phoenix, asserts.

5. Prometheus as a Paradigm of Self-Healing and Regeneration

The story of Prometheus' liver presents us with a special puzzle -- what is the symbolism of a liver devoured by the eagle by day and regenerated by night? Life is sustained through biochemical processes that by themselves wear and tear it down. Life and death are, as it were, two different faces of the same coin. The same processes that maintain life are also those that bring it even closer to its end. Yet, even as living organisms are moving through a sequence of wear and tear, of aging and degradation, deep inside the living cells are hidden forces of regeneration and renewal. We know that these forces are strongest at night, during sleep or relaxation, repairing the damage done by active life, eliminating the poisonous substances of fatigue, and even reconstituting tissues to their earlier freshness and vitality. More broadly, and in the frame of the cosmos which is dominated by energy dissipation and increasing disorder, what we call in thermodynamics increase in overall entropy, the phenomenon of life itself constitutes an island of negative entropy, a march against the flow, a reversal of the cosmic trend toward chaos, an island of increasing organization and order. No better example of this reversal than the liver and the pancreas, organs made of highly differentiated cells performing complex and specialized functions.

Has modern medicine taken full advantage of this remarkable ability of self-healing? Isn't it possible to highlight and enhance it? Such enhancement cannot be merely mechanical or biological. In the complex combination that constitutes human beings, intricate and powerful, albeit not always well known, interactions occur. No one today can deny the powerful, inextricable interplay of body and soul, of biological and spiritual factors and their overall effect on human life and health. The state of mind, the level of morale, and yes, the depth of one's religious faith may have enormous influence in the person's resistance or susceptibility to disease as well as on the chances and rate of recovery. Even more importantly, these can have a decisive effect on the manner with which a patient bears his/her affliction and the specter of death. For in the final analysis, what is important is not so much "what" will happen to us but "how" we will handle the events that are bound to happen to us; above all, whether we can handle with dignity illness and the approach of death. Prometheus is again beckoning to us from his tortured crag; he bears his torment with great stoicism and high spirits. He does not give up hope, he believes in the purpose of his action and expects to be fully vindicated. It is perhaps because of his high morale that he exhibits astonishing powers of self-healing and survival.

The Genius of the Hellenes

Is it possible that the ancient Greeks knew all this? Are we trying to probe Prometheus' foresight while having the benefit of hindsight (Epimetheus's forte!). It is worth pondering the question.

The Greeks have always sought knowledge as a guiding light to their personal and social life. But it was knowledge of a higher level and a deeper quality, not merely knowing of facts. The philosopher Heraclitus said in one of his more pointed and profound apophthegms: "Knowing of many things does not teach wisdom" ("Πολυμαθίη γνώσιν έχειν ου διδάσκει.").

And when Socrates advised his disciples to consult and rely on the opinion of the “οιδῆμων”, the one who knows, he meant the one who possesses inner, substantial knowledge. It is through this relentless quest for deeper knowledge that the ancient Hellenes reached, through deliberation and, mind you, without the benefit of experimental work, such astonishing levels of knowledge and human understanding. This wisdom was, in turn, encoded in the allegorical and symbolic language of the Hellenic myths, the lyricism of poetry and the dramatic expression of the theater.

We, those assembled here tonight, as well as the entire world at large, are the inheritors of beneficiaries of this legacy. The ancient Hellenes believed that “Hellen is everyone who partakes of Hellenic culture”. We, who hear the message of Prometheus are, therefore, all Hellenes, spiritual descendants of his grandson Hellen. We understand him as he speaks his universal language.

The Resolution of the Conflict

We do not know how Aeschylus resolved the dramatic conflict between the great Jupiter and the great Titan; the two remaining plays of the trilogy, Prometheus the Fire-Bearer (Προμηθεύς Πυρφόρος), and Prometheus Liberated (Προμηθεύς Λυόμενος), although, unfortunately, lost, suggest a resolution. We know from Hesiod that Hercules, the powerful and benevolent demigod, given permission by Jupiter himself, visited Prometheus in the Caucasus, killed the vulture that ate his liver and freed him from the rock. Ultimately, the great Titan was reinstated in the upper world with intelligence and power, as human aspirations were at last reconciled with the godly will. How did it happen? Perhaps reason prevailed; Prometheus’ unbending will may have swayed the master of heaven; Jupiter may have decided to give mankind the benefit of the doubt; mankind may have acquired a higher wisdom. However it happened, the Hellenic genius found a way to bridge the chasm between two gods, balance opposing forces, and bring conciliation out of conflict.

Conclusion

It is not possible to draw easy lessons from the legend of Prometheus. Deep insight does not usually come from rationalized thought. The drama of Prometheus, however, is alive today as it ever was. It is re-enacted time and again in our own experience, as brute force clashes with intelligence, the potential of human accomplishment contrasts with human devastation, a life of sacrifice is a distinct challenge in our personal and professional lives, and light flickers at the end of a dark tunnel. Ultimate conciliation looms in the horizon as an eventual promise to present struggle. The suffering of Prometheus, excruciating as it may be, is only rivaled by the strength of his will and the tenacity of his purpose; his unbending spirit, a telling metaphor of mankind’s resolve.