

Humans on Mars
and beyond

by
HB Paksoy, D.Phil.

Mars and Beyond

The purpose of this collection is not to discuss the technologies required for the round trip. Nor is it to discuss the 'inevitability' of human quest to explore. Instead, the focus is on politically 'what will happen' when the humans reach Mars.

When the 'white men' arrived on the new (American) continent, they brought much of their own culture and world view with them. Despite the existence of natives who were already living there, the newcomers began to establish the institutions they imported. And those new institutions were to the detriment of the existing natives. That did not stop the newcomers, nor, by-and-large, saddled them with moralistic issues.

Mars, to our current knowledge, does not contain any native populations. However, the Earthlings

Humans on Mars Copyright © 2012 by
HB Paksoy. All rights reserved.

ISBN: 1470187221
ISBN-13: 9781470187224

Humans on Mars and beyond

arriving there, once again, will bring their own institutions with them. In this case, we may even surmise, more than one system, given the proliferation of space technology among nations of diverse backgrounds. That also means there will be more than one culture, as well as Governance method. Does that herald a clash of cultures and Governance modes? At that point, it becomes necessary to spend some overview time, looking at the behavior on Earth.

This is not to suggest that there are inherent ideologies specific to certain lands. On the other hand, there are the historical examples that keep repeating, because the humans living on those lands wish that circle of life. That circle may be easily renewed, since there is air to breathe, and water to drink on Earth lands. Those two elements are either scarce or as yet non-extant on Mars. That means, if colonies are to be established on Mars, both must be generated artificially, safely and continuously. Technological journals have been filled with articles showing how those aims could be accomplished, albeit expensively. On the other hand, we do not yet know, if the different cultures that

Mars and Beyond

are preparing to colonize Mars have agreed to collaborate when they arrive on Mars.

History has limits. There have been more historiography volumes penned than a professional historian may be able to read in a human lifetime. Yet, limits are still there. For example, at one point, it was suggested that history has ended because a country had won a non-shooting war. Perhaps the reference was only to that chapter. That did not mean all the historical questions were correctly answered. A few examples¹: One of the intellectual questions, at least to the outsiders, was whether or not the current Egyptians are the biological descendants of the ancient Egyptians? After all, Egypt has been occupied by a string of outsiders, and their ruling family was replaced several times. That, without even bringing up the issues of governance and religion imposed upon the population in general. Naturally, the current day Egyptians are much more interested in that question than outsiders for heritage reasons. However, historians or the historical

¹ HB Paksoy, "Kutluk Veren Bilgi'nin Baslangici, Tarihcinin Sonu: Tarih Mi, Yoksa Tarihcilik Mi Son'a Erdi?" in **Dusuncelerin Kokenleri** (Florence: Carrie/European University Institute, 2006)

Humans on Mars and beyond

record could not authoritatively demonstrate an answer one way or the other. The length of time that passed since the removal of the native dynasties, and the loss of records due to various reasons (arson, systematic removal, et al), there was not sufficient material for the historians to apply their historiography to derive a clear answer. The question about whether the current day Egyptians are direct descendants was initiated by Napoleon's actions. Finally, technology has caught up to provide the tools for a verification of the question. Even though Napoleon's primary aim in invading Egypt (1798–1801) was to cause England economic difficulties by cutting the lines of communication between India and England, the more enduring results he obtained there were to the benefit of all humanity. At this juncture, we also need to recall that Napoleon was in the company of select scientists.

Later on, another such question involved the death of Napoleon Bonaparte. How did his majesty pass away? Again, hard sciences provided the answer as opposed to the historical profession.

Mars and Beyond

Many an academic discipline may outlive a productive past. They are either completely discontinued, or give birth to other, more rational, new disciplines. Alchemy has become chemistry. While alchemy strove to convert lead into gold, the resultant efforts encouraged wider thinking. Something similar may be said of the relationship between astrology and astronomy. In this century, there may be several other disciplines that can be candidates for that outcome. Is history one of those? Or, was the treatment and practice of history misconstrued originally, and needs to be re-oriented toward more practical sub-fields?

It can be argued that the primary use of history is to learn the lessons from the experiences of the past human polities. The familiar timeline that is usually attached to historical study is necessary in order to know the flow of events in the proper sequence. The lessons will be skewed if Reformation is considered before Christ. Then comes the most critical of the steps; how those lessons are identified and learned. Perhaps it is easier to notice a lesson than learning it. Since history is the record of humans, the learning of

Humans on Mars and beyond

the historical lessons can be very problematic. Humans tend to believe what they wish. They can create images in their minds, and propagate that image in media even when no such event was recorded anywhere. As one result, the wrong lessons may be learned from the historical record. And those wrong lessons, in the hands of overly ambitious leadership teams can lead to disaster; not only to nations, but also to the world. Libraries and bookstores are full of volumes showing what happened in the aftermath of a historical lesson incorrectly learned.

History is not a science that can be reduced to equations. That is, one cannot establish formulas to predict future behavior of nations, individuals or the world. Yet, in capable hands, lessons can be summarized from past experiences to help the future behavior. Given the relationships between Spain and Portugal in South America during the 15th century, Russian Empire in Central Asia in the 19th, the British and French in North America in the 18th, Rome in Illyricum and Dacia in the 2nd and 1st centuries B.C., these are but a few examples that will guide us to 'state behavior' on Mars. Those behavioral patterns may be

Mars and Beyond

altered somewhat by the international treaties signed by nations on Antarctica and Agreement Governing the Activities of States on the Moon and Other Celestial Bodies. For ease of access, both of those treaties are appended to this work. To what extent those treaties may overcome the colonial zeal is something that needs to be considered now. And, that is a task that can be tackled by history.

The 'state behavior' is closely tied to culture. Most nations have developed a culture unique to themselves. Some cultures are more heavily influenced by others than some. Others have adapted various cultural traits developed by others. Nonetheless, culture may be specific to a nation, but exhibits various sub-headings, such as food, politics and reactions to other cultures. One of the better examples may be found in Europe, between British, French and German models. As soon as one develops a particularity, others tend to adapt it to the specifics of their own. Germany has the **Nibelungen and the Ring Cycle**. Britain has the **Lord of the Rings**. The French possess their own versions influenced by Wagner or in response to him. One example is by Gabriel

Humans on Mars and beyond

Fauré as well as André Messager. Given that 'high culture' often stimulates and dictates thought patterns on the minds of the governance strata members, and sometimes keeps alive 'chips on shoulders,' one must not make the mistake of disregarding this category in the decision-making process. Some old wounds are very difficult to heal, and the said wounds may flare at any moment. Even the 20th century is full of examples.

Political culture is another road-marker. All cultures in this category experience stresses between the rights of individuals versus the tendency of the central government to control all aspects of life. The governance stratum of a polity is generally in competition with the governance strata of other polities. And the individuals invariably demand freedoms not necessarily easily accepted by the governance strata.² The struggle becomes visible not only in the intellectual arena, but also in the streets. The empire versus republic tug-of-war in Europe is well known across time. Asia has another version of this matter, if not older.

² HB Paksoy, *IDENTITIES: How Governed, Who Pays?* (Printech, 2001); also available from *Entelequia*, 2006 (2nd Ed.) <http://www.eumed.net/entelequia/pdf/b002>

Mars and Beyond

Economy (or, more plainly, how wealth is accumulated) is yet another arena where differences between polities are differentiated. Mercantilism of Europe and the Capitalism of the early American republic versus the Etatism of France may be cited for the purpose.

Given that a series of countries have either developed technologies to reach Mars, or are about to, they are likely to take their cultures, in any format, to the Red Planet. To those, one may also add the corporate cultures that have a vested interest in the effort. That interest does not stop at the launch point at earth, after they have designed and built the devices needed for the trip. The companies who design the spacecraft are only the tip of the proverbial tip of the spear. There are others who will benefit from the acquisition of rare minerals, and those who seek manufacturing facilities without interference from environmentalists. And, yes, the management of those corporations is comprised (mostly) of humans as well.

The corporations always had a love-and-hate relationship with the governing strata of the

Humans on Mars and beyond

polities in which they are chartered. Some are encouraged by the state; others are muzzled. And none of those conditions are permanent, but subject to the sway of a series of conditions. Most of those conditions occur due to the share of the global wealth pie they covet; as do all humans.

As also indicated in the chapters, technology will always progress. Scientists may even find a cure for the common cold. On the other hand, all possible governance methods, systems and modes have already been developed and tried at least once. That is where historical discipline's task rests: drawing and propagating the lessons from all those trials for the benefit of the entire population on earth; and perhaps even beyond.

Meanwhile, we may come face-to-face with beings from outer-space. They may know us much better than we can ever hope to learn. That is likely to affect our better understanding of religion as well. "Tengri on Mars" may provide a portal for that purpose. After all, the United Nations already designated a person

Mars and Beyond

for the space aliens to contact, whenever that might be.³ One may suggest, humor is the most important attribute for the task.

In the meantime, all that remains to be done is to find the proper public relations handles for the animalistic processes such as sex and death during the voyage.

The principal articles brought together in this volume were all published in the pages of the journal **Entelequia. Revista Interdisciplinar**. I offer my sincere thanks to Editor-in-Chief: Alfonso Galindo Lucas and Executive Editor: Rafael Gómez Sánchez as well as the Editorial Board Members who have remained anonymous during the related review processes.

"Governance on Mars" was published during 2009. On Sep 17, 2010, at a press conference held in Kremlin, Moscow, introducing the International Space Station Expedition 25 Crew: NASA astronaut Doug Wheelock, Russian cosmonauts Oleg Skripochka and Alexander Kaleri; NASA astronauts Scott Kelly and Shannon

³ <http://www.telegraph.co.uk/science/space/8025832/UN-to-appoint-space-ambassador-to-greet-alien-visitors.html>

Humans on Mars and beyond

Walker; along with Russian cosmonaut Fyodor Yurchikhin,⁴ the Russian Cosmonauts began answering the questions raised in that piece beginning at time index 17 minutes, 25 seconds, of the said Press Conference. (Uploaded by NASA television).⁵ On January 26, 2011 it was announced that the PLA Chinese Air Force began issuing pilot licenses for first time as reported by Zhang Qian, People's Daily Online, again, addressing the same questions.⁶

At this stage, there seems to be two objectives for manned flight into space: The first is Mars, and the next one is the moon of Jupiter, Europa. As yet, it does not seem that the choice is decided upon.

Human life is brief. And, technology takes time to develop. I expect, I will not see the humans landing on Mars and certainly not on Europa. But, in all probability, my Grandson Sami Paksoy will. Therefore, I dedicate this work to him.

4 http://www.nasa.gov/mission_pages/station/expeditions/expedition25/index.html

5 http://www.youtube.com/watch?v=g02meEV6hl4&feature=player_embedded#!

6 <http://english.people.com.cn/90001/90776/90786/7273402.html>

GOVERNANCE ON MARS

We are immediately inundated with questions, when we consider Mars as a proposed extension of Earth:

1. What will be the identity of the Mars colonists when third parties arrive; will they be identified with the political-economic terminology and personality (USA. or The People's Republic of China or The Russian Federation, Japan, India, South Korean), or Earthly ethnicity (white-black-brown, et al)? Is the latter condition not already being perpetuated now under the magical term "globalism?" Especially since, only the terminology is new –"cosmopolitanism" has always been around. Secretary of State John Hay, in 1899, espoused for

Humans on Mars and beyond

China, the Open skies doctrine. That was essentially another restatement of the same objective, just like the Internationalism wave of the 1950s, and multinationalism of the 60's and 70's, all of which may be said to hark back to the Roman Empire.

2. What will be the primary objective of the Martian identity on the colonies? Will the residents be representing the nation states whence they came (therefore, working for the taxpayers who sent them to Mars), or will they be looking after the interests of private agencies or corporations?
3. Is it possible to consider Mars without a distinct identity, independent of the myriad of identities brought to the planet's surface from earth? If not, is it possible to create a mosaic identity, or will it be one started with a clean slate?
4. Who will benefit from the natural wealth of Mars? Those who paid for the cost of reaching Mars, or the entire humanity? In one way or another, the entire humanity

GOVERNANCE ON MARS

cumulatively participated in creating the capital that paid for the expenses. Corporations sold goods worldwide to accumulate their profits; multinational agencies benefited from global talent et al.

5. Will the Martian 'ownership' be modeled after the Antarctic treaties? That is, will Mars (and all other future colonies) be treated as the property of all humanity and held in trust for the purpose? Who will enforce the treaties, if that will be the governance method selected for Mars? With what? Whose police or army, if there are transgressions to the capitulations of the agreements? United Nations?

Will there be any overseeing agencies to whose authority one may appeal if the force used is thinly veiled under legal precepts? Such as the International Court of Justice, The Hague?
6. What will be the role of private groups, companies on Mars? Will those private entities operate as owners, or contractors? If as

Humans on Mars and beyond

contractors, will they carry state powers, say like The British East India Company?

7. Especially initially, it will be very expensive per person to be living on the surface given the geologic and biologic imperatives requiring correction to human tolerable levels. So, when a Martian colonist commits a crime, will that person be incarcerated on Mars or will that person be exiled to Earth where it will be much less costly to complete a jail sentence?
8. Similarly, cost of rearing a new generation from birth will also be costly. Will this be allowed, or will there be an importation of adults only? Will this be in the form of the medieval Mamluks? In the case of the former, will this regulation not be tantamount to issuing birthing and parenthood licenses? In the case of the latter, perhaps there might be a return to the indentured professional?
9. What will be the relations of Earthlings to the Martian colonies? Not to be taken lightly. To acquire goods and resources

GOVERNANCE ON MARS

from Mars, some legal document will have be designed, if Mars (like Antarctica) is being held in trust for all humanity. By what authority will the Martian side sign the contract? If the Martian side does not perform the conditions stipulated, which authority will be tasked to enforce remedy?

10. Who, by the way, will provide the police system, personnel, equipment in Mars? What type of court system will be needed for local transgressions of law not involving international treaties?
11. Will the relations between Mars and Earthly polities conducted on the bases of equal treatment, from state to state? Will both entities be entitled to keep embassies on each others' soil? Or, will private third parties, such as corporations, be deputized to perform those duties?
12. In case the deputies (selected from private entities) fail to carry-out specified duties, who will arbitrate? For example, if

Humans on Mars and beyond

the East India company—British, French, Dutch, et al—entered into a transaction outside India, directly with another foreign entity, who enforced or guaranteed the performance? After all, East India company was not an accredited country, even if the company possessed armed forces, army, navy and tax collection apparatus with full administrative cadres, including courts.

13. On earth, 'colonization' meant sending a group of individuals to deal with extant populations in order to extract maximum benefit for the interest of the mother (sending) country. In the case of Mars, the expected Green Martian Man did not yet materialize. Therefore, the expectation is dealings only between the different ethnicities and nationalities who will be sent from the Earth. That may prove to be a much more difficult task than the earth colonization projects. Simple reason: in the earth projects, the colonizers had, in many cases, technological advantage. That may not be the case on Mars.

GOVERNANCE ON MARS

14. The question: "we already have plenty of issues on earth, should we not solve them before we are concerned with mars?" can be posed. There is a two-part response:

A) We are selecting Mars as our stage to discuss earthly matters. The purpose is to look at the mechanics of those issues without the national, and personal, colorings to understand how they work.

B) Whether 'we' are ready or not, somebody will land on Mars, and 'we' will be confronted with the issues, regardless. The matter appears to have been settled: Mars is the target planet for "colonization."

15. The best solution is not to have the problem in the first place. That is: if the intention was to keep the existing borders, relations and develop in cooperation into the future, related mechanisms must be established ahead of time. We must, therefore, reach-out to the earthly neighbors in order to become acquainted what will be greeting us on Mars, whether we like it or not.

Humans on Mars and beyond

Or else, the extant polarities are promising to shift significantly.

16. The suggestion is not to peer into the crystal ball; That would be too easy. Instead, to prepare for certain alliance shifts.

“May I see your Identification?”

It is a friendly enough request by the private security guard. After all, he was hired for the purpose. These are the facilities of a private company, producing devices for export to space stations and to Earth. Never mind the fact that most of the cost of constructing the facility was drawn from public funds, furnished by taxpayers. I do not have an identification card. But I ask: “Were you not informed of my pending arrival?” The security guard is silent in his self-contained environmental suit.

Congratulations! The spaceship launched by the United States and Allies, arrived on Mars and disgorged the personnel tasked with the duty of colonizing the planet with earthlings. Mind you, there was an international incident along

GOVERNANCE ON MARS

the way; the order in which the flags of the Allies were to be displayed on the spaceships was the issue. And those allies with national symbols also included private companies, not simply political entities with defined borders.

This is possibly the most momentous occasion since the Vikings landed on Vinland (who may not have left a flag or banner on the ground). Now, the immediate issue is not technology, but governance. Why, what about the monumental technological accomplishment that brought humans to Mars? All that is now Immaterial. If humans have reached a clean slate, such as Mars, they are bound to bring their emotional and intellectual baggage with them.

One of the primary items in that inventory pertains principles of governance. That is an endowment we humans have been handed since primordial times. Such emotions and practical applications are distilled in the following:

“46. I was observing a group of early grade school pupils. In their play-time they were engaging in creating the rules of their activities.

Humans on Mars and beyond

One suggested that he was the most senior. Another countered that he had been a pupil longest. A third began taking a threatening posture toward the first two. The point of contention was to determine who was going to order the rest of the children about. This formula will persist for the future."⁷

Naturally, every type of governance requires financing, even if the guiding doctrine of most administrations is to quietly sweep the issue under a distant rock. At this point, the group that has arrived on Mars is not concerned with finance. Or, are they? Who financed the research and development of the trip and related vessels and equipment? We might remind ourselves that with an anecdote:

Nasreddin⁸ was going to the market. When the neighborhood children discovered that, all ringed around him. Every last one asked

⁷ H.B. Paksoy, *IDENTITIES: How Governed, Who Pays?* (Malaga: Entelequia, 2006) Ed. Chapter 13: Observations. <http://www.eumed.net/entelequia/pdf/b002.pdf>

⁸ H.B. Paksoy, "Elements of Humor in Central Asia: The Example of the Journal Molla Nasreddin in Azerbaijan" *Essays on Central Asia* (Lawrence: Carrie, 1999); see also, H.B. Paksoy, Ed. "Introduction" *The Bald Boy Keloglan and the Most Beautiful Girl in the World*. (Lubbock: ATON, 2003). All are available on the web.

GOVERNANCE ON MARS

Nasreddin to bring back something specific. Just before Nasreddin undertook his voyage, one child approached him, handing a coin. He asked that Nasreddin bring back a whistle.

In due time, Nasreddin returned from the market, with the same group of children surrounding him, awaiting to receive what they had ordered from Nasreddin. Nasreddin produced a whistle, blew it, and handed it to the child who asked for and paid for it. Nasreddin loudly announced: "He who pays for the whistle, owns it."

Naturally, whomever paid for the Mars trip (and related preparations) will get to determine who will govern Mars, and how? Or, will that be the case? For example, on what principles of governance? Is it going to be a democracy (whatever that may have meant), dictatorship of spacesuits, or inmates of the bubble abodes?

Besides, will the payment be entirely in monetary terms? Who paid for the Glorious Revolution (1688)? American Revolution (1776)? French Revolution (1789)? Russian Revolution (which

Humans on Mars and beyond

one?)? And a number of similarly momentous ones, some much older than those listed above?

Governance and public finance are inseparable siblings. It is not possible to keep the two apart for long. And, as every thinking person knows, public finance equals taxes. There have, of course, been occasions where a private entity may have paid for the public. In that case, the end result can hardly be fully public.

There have also been instances where the public monies have been spent, for public good. Yet, a private entity may have collected the glory. The latest example of this phenomenon involves football stadiums in public universities. The football stadium might be named after a private entity as if that private entity has paid for all relevant costs. In some instances, what the private entity donated equals to approximately ten percent of the total; the rest being augmented from the public taxes, but the edifice is known by the name of the private person or organization. Naturally, there is likely to be a 'partnership,' and there are many examples across the United States: The custodians of the

GOVERNANCE ON MARS

public purse are swayed only after a private entity pledges, at a distant future, to make their contributions. One can think of the football stadium examples.

So, how can the Mars partnership be structured and governed? One can easily see public servants of the United States and a collection of allies stepping out of the spacecraft that brought them to the inhospitable environment. What is their first action?

Let us step back a moment, and consider the related development of mechanisms.

Governance of some sort is a precondition to collect taxes. There has never been a polity that could survive without "public revenue," so necessary to pay for common expenditures for the sustainment of a society.

Taxes have always been in existence, for the convenience of the taxing authority. The basic justification is that taxes pay for the security of the polity, if not, provided some is left over, for public works. That, of course, implies that the

Humans on Mars and beyond

public servants charged with the duty of overseeing the governance are carrying out their duties. Any time there is a misuse in the taxation (the king or the president needing a new palace, for example), the entire picture becomes skewed, to say the least.

Thus, Governance is never simply a matter of the 'leadership' giving instructions or handing down decrees. The purpose of Governance is to provide the security and comforts to the Governed. The Governed would prefer to know what tomorrow or next decade will bring. The Governed also would fancy ever higher levels of creature luxuries. These factors broaden the discussion into all relevant areas of human interest. Without food and other basics, the Governed cannot exist or maintain life on Earth. Lacking a population to Govern, regardless of the nature, philosophy or application of the governance system, all is non-existing.

A series of governance systems insist (either via their written doctrines, or by human supporters with vested interests) that they are the most

GOVERNANCE ON MARS

humane, etc. Yet the humans must effect the application of any governance system, regardless of the claims made by anyone. It is possible to apply a coat of paint to a wall, in a cursory or excellent manner, so it is with the application of governance. The application and the resultant Governance System may wear hobnailed boots or glass slippers.

Technology will continually develop. It always has. It is in the nature of humans to exert efforts to compete, and, technology is yet another field of competition. Except, the winner in technology will also be in a position to win in every other endeavor for which there is a contest. Occupation of lands is perhaps the most favorite.

At times, previously developed technology is lost for reasons we do not necessarily understand. Yet, what was lost at one time is recovered or re-invented later.

Many a time, it is assumed that technology changes governance. This is not so. Technology always provides tools toward any number of

Humans on Mars and beyond

objectives. It is the human brain that creates not only technology but also the uses.

Principles of governance:

The principles of governance may be represented as follows:

1. Cooperation among the population for mutual governance versus one person autocracy;
2. Permanent Rule by a self-defined (and accomplished) group, versus governance by a randomly rotating leadership, with or without elections;
3. Hereditary Rule by a dynastic line or lines versus externally appointed ruler-ship of any stripe;

Any and all of these basic identities will exhibit variants. These variations are not progressive or chronological. That is to say, one perceived evolution will not lead to another, set of steps. Instead, the entire process is dynamic, moving

GOVERNANCE ON MARS

back and forth with the ebb and flow of the human nature dominating the polity involved.

Governance and Rebellion to the same is natural. Elders will instinctively look after the younger generation, for the survival of the species. It is only the sharing of scarce resources that will bring out the best and the worst in the governing strata and those who they govern. This bifurcation deepens if the governing strata happens to own the resources or has acquired control of them in any fashion. Again, the designation or label of the governance system is immaterial at this juncture. It is not the words that determine the character of the process, but the actions.

The actions first require thinking. Not a random thought, but an ordered variety.

Allow me to suggest an approach:

One of the ordered varieties is Critical Thinking (and allied outcomes). This mode requires collecting all available data and auditing each data set against all others.

Humans on Mars and beyond

Instead of attempting to start with a definition of Critical Thinking, could we have

some applied cases, and reverse engineer the working definition? Or, perhaps, by the time we find the applications, there will no longer be a need for a frozen, static and hampering set of words. After all, Critical Thinking requires a great deal of flexibility under constantly changing conditions and sets of information available to anyone on the scene.

Since each involved person is bringing a different disciplinary specialty to this gathering, the examples are likely to reflect different approaches to solving the problem of "how do we successfully teach/arrive at, critical thinking in order to educate participants to obtain maximum rational results with minimum error?"

Momentarily, we can take a panoramic look at what we need to accomplish. We must live in a society. And this society is increasingly multinational, practically multi-everything. So the issue, I would suggest, is one of governance:

GOVERNANCE ON MARS

What type of world are we going to live in?

Are we going to allow somebody else, who we did not elect, to dictate to us the terms of life, make choices for us? Mind you the claims of taking charge because there is a "critical emergency" requires an investigation of the said critical emergency to determine the causes thereof.

Or, are we going to make those choices for ourselves, with the help of communal approaches?

What allows us the balance between the extremes?

Those choices will also determine where we live, how we live, what we can and cannot do.

One of the difficulties of stressing the importance of these questions is that, the data, or even the issues, are not always 'visible' to everyone.

Example: During the early part of the 20th century, every citizen living in the Chicago area was taxed involuntarily; even unknowingly. And the beneficiary organizations did not use

Humans on Mars and beyond

that tax revenue for the public benefit. How? Simple:

A series of extra-legal organizations started charging 'protection money' from the basic necessity providers to the population. The green grocer had to pay two or-three pennies a head of lettuce; butcher was assessed another per-item amount, and so on. Those who declined to pay the said tax, saw their businesses utterly, physically destroyed. Of course, those 'cost of doing business' items were passed on to the consumer by the green grocer and the butcher. The collected amounts ended in the pockets of the collecting organization's boss. And those amounts were not spent for the good of the people who paid them.

Is this method of secret taxation still continuing? And, not only in Chicago, and not only confined to foodstuffs?

How do we know this and what do we do with the information? The requisite research skills must necessarily accompany the Critical Thinking methodology.

GOVERNANCE ON MARS

This type of example can be expanded. But we must not lose sight of the task at hand.

Perhaps a methodology course may be employed to teach Critical Thinking.

That may form the bases of following a methodology of thought processes. After all, rationality versus emotional thinking need to be separated. Wishes cannot become reality on the bases of wishing alone. Reiterations help. Or, does any of the above need to be abandoned, for a full surrender?

But, how do the people "on the street" be educated in this manner? By sending everyone back to school? Design and make available on-line courses? Does everyone have access to online mode of communication?

At the moment, most Students I can recall over the years (I personally grappled with this very issue in several universities over the past three decades, both public and private) do not fully understand the meaning of 'critical' in the first instance. Would 'Rational Thinking' help

Humans on Mars and beyond

obtain more effective results? Especially when a Student earnestly responded to the question with the statement:

“I think I will get a cup of coffee; that is critical thinking; I critically need coffee.”

This is at a time when a good portion of “people on the street” are living in virtual fantasy worlds. They buy imaginary islands, earn make-believe fortunes, live the life of a galactically wealthy person in the universe. Then, something funny happens. The virtual and actual start clashing. The monthly bills still need to be paid in hard currency, as opposed to the currency accumulated in the fantasy world.

A society needs, inter alia, goals in order to survive.⁹ Those goals can be provided in the form of virtual fantasies, before the so influenced individuals start taking their cues from those fantasies to provide the reality. Therefore, we need not prevent fantasies. Do we endeavor to

⁹ HB Paksoy, “Toplum Olarak Varılmak İstenen Sonuç Nedir?” **Düşüncelerin Kökenleri** (Florence: European University Institute/Carrie, 2006)

GOVERNANCE ON MARS

“direct the fantasies?” Surely not. Would that not be thought control?

Governance on Mars, as long as the colonizers are from Earth, will evolve according to what Earthlings have done since the dawn of history. Colonies have been formed on Earth, much like those to be formed on Mars and beyond. The experience has been quite expensive and painful. Each and every possible type of governance mode has been devised, applied and discarded at one time. Adding new technology into the mix, for example, in the course of reviving fascism, does not constitute a new mode of governance; only makes the suffering of the masses greater.

Over time, even the discarded ones (for example, dictatorship of one person or committee) have been resuscitated by eager minorities wishing to jump their places in History, until re-buried by the painful efforts of the masses, at horrendous costs.

Have not those masses themselves were mis-directed at one time? As, for example, in the

Humans on Mars and beyond

French Revolution? Quite likely. But all that was out in the open, in full gaze. And that helps to draw the lessons for humanity not to repeat the errors.

Humanities on Mars

HB Paksoy

It is necessary to have mastery of sciences for a voyage to Mars. Finances cannot be ignored either. But, after that, what? Why generate the related technology and for what purpose? Are only the computers going to live in a new colony to be established on Mars?

Since 1960s, there has been a gradual change in the education patterns. Instead of learning how humans get along with each other, now only 'learning money-making' skills are preferred. Nothing wrong with that, is there? But, the question then becomes, 'how to make money without human relations.' Can computers

Humans on Mars and beyond

make money without humans? What would the computers buy with money? Electricity?

Humans always existed in all varieties from evil to angelic. They have permanently been a squabbling bunch at best. Some managed to put on paper their personal experiences. Others distilled all their knowledge and put it on paper as a warning to future generations, describing types of behavior to avoid. Yet others wrote their pure criminal thoughts under the guise of guidebooks. A sampling of those writings can teach a youngster what lurks behind the faces they might see on their computer screens. Whether or not they like it, the person appearing on a computer screen belongs to the human race. As such, that person possesses all the frailties described in earlier books.

Now, all those experiences, knowledge and wicked thoughts have been accumulating for several thousand years in books. They aid us in understanding the human nature. Money-making secrets are hidden in the pages, waiting to be discovered. Wait! Did someone actually read them and learn all those secrets

Humanities on Mars

on money-making? Do I understand, those persons are now trying to hide those lessons by diverting attention away from humanities and into technology?

“Critical thinking” is one aim of humanities. One must comparatively audit what one has been learned. This lesson was first learned by humanist members of the Christian Church, and rather painfully. Erasmus (October 28, 1466 – July 12, 1536) was one who practiced it very carefully with Kings, Popes and Princes. His weapon was most often cloaked in humor. And, a delightful humor it is. An earlier person to mention is Wycliffe (c. 1328 – December 31, 1384). He was an academic theologian and member of the Church; his efforts were much more arduous and met with severe opposition from the religious hierarchy, but met with secular support from the Crown. Among his other activities, he led the translation of the Bible into English to make it available for the masses. Jan Hus (c. 1369 – July 6, 1415) was influenced by Wycliffe, a member of the clergy, and in turn, influenced Martin Luther (November 10, 1483 – February 18, 1546). In the case of

Humans on Mars and beyond

Wycliffe, a special Synod was convened to try him. It did not yield the results desired by the Church. However, the Council of Constance in 1415 declared him a heretic for his activities; the Church had his bones exhumed and burnt on 1428 and his ashes were cast into river Swift. That was more than forty years after he had died. Jan Hus was not spared; after several trials by the Church, he was burnt alive on July 6, 1415 on the Rhine River. Martin Luther was tried, too. However, he was being protected by the German Princes, because, Luther was against paying ten percent of the lands' income to the Pope as tithe. The activities, thoughts and principles of these men may be taken as markers for the beginning of a 'free thought' period by all humans. Wycliffe's ***On Universals: Tractatus De Universalibus*** is one of the early attempts at shearing the clothing of truth to get at the meat. Luther made the Bible available to the common people. Hus bridged the two by opposing doctrinal thinking.

I taught humanities for a number of years under various 'guises.' In those courses, my main point was always teaching how to think,

Humanities on Mars

supported by evidence, based on lessons of consequences. The majority of the students were resistant. The reason was simple: they were in college, because they were told, having a degree would cause them to receive a promotion, a higher salary. They were not interested in the details! I finally made a "deal" with my students: when they earned their first million, they would give me one percent. Why? Simple: because, in my Humanities class (though it was sugarcoated, and called something else) they learned critical thinking. And, besides luck, critical thinking is the first requirement to make money. And, during my tenure at that institution, one student that we knew of made his first million after being tooled in my famed class. Did he give me my one percent, as agreed? No. He was too busy, on his way to make his second million. He had learned the secret. And, his classmates knew the score, if not the methods.

In an on-the-ground classroom, it is more plausible to influence the minds of the students than in on-line classes. Human interaction matters. In on-line classes, the students invariably turn

Humans on Mars and beyond

sultrier, since there is no direct human contact; the instructor cannot look into the eyes of the students. The human speech is not heard; quite a bit of irony is lost in written words. The student motive is the same: a college degree will earn them higher salaries, perhaps one hundred dollars more per month:

*They come to believe that, everything needs to work lock-step so that they (Students) can reach their goals on their own schedules. For the purpose, the Students fall into the deadliest educational trap: expecting set answers to set questions. The meaning is clear: The Student is submitting to the will of the higher authority, for the sake of making more money. Will that behavior also just as easily transfer to the political will of higher authority? To induce the Students to unthinkingly repeat the painful atrocities of the past, because they were not taught them?*¹⁰

Perhaps that student remembered my three-sentence economics lesson: if you wish to earn a million dollars, go into business. Amassing

¹⁰ HB Paksoy, "Online or University Education," *Entelequia. Revista Interdisciplinar*, 10, Fall 2009. Pp. 167-175.

Humanities on Mars

one billion requires going into politics. If you wish to have more, then you must start a war.

Wars have more results than simply making money. Moreover, the combatants do not always need to be from other nations, polities. A state can wage war on her citizens as well. That war may or may not involve firearms. Technology can be used in more than one way:

Historical evidence shows that, there has been, throughout history, it is possible to observe a continuous contention between the individual and the polity identities. This intra-communal bifurcation manifests itself in all activities of human endeavor, including economic, political and personal versus sovereign states rights. However, never before the role of technology has been elevated to the present level, contesting all comers, to reach absolute supremacy. This contention is not only to replace previous holders of levers to rule or dictate, but to reach levels of control heretofore unknown. Obviously, technology, without human guidance, cannot achieve a result. Left unchecked, any governing strata can utilize the technological means

Humans on Mars and beyond

*to deny any segment of society the individual rights that have been at least philosophically established.*¹¹

The above examples of Wycliffe, Hus and Luther have demonstrated that point. What about here and now? Are we repeating the errors of the Roman Empire, the errors that caused the collapse of the state? What were those errors? Since the Roman Empire is so well documented, through their writers and historians, we may hazard a few basic points.¹² When the British Empire 'expelled' the puritans in early 17th century, what was the reason? Great Britain was a Mercantilist polity, which is both an economic and political system. When the immigrants arrived in the new colony of America, over time, they prospered in a proportion they were not allowed in England. Under Mercantilism, not just anybody could amass wealth; it is a privilege of a certain class. To further develop, the Colonial Americans (among them, Puritans) needed to have a "measure;" a device called money or credit instruments. But, the bureau-

11 HB Paksoy, "Leviathan: Identity Interactions between Society and Technology", **Entelequia. Revista Interdisciplinar**, 2006, issue 2. Pp. 157-162.

12 HB Paksoy, Imperialism on Mars.

Humanities on Mars

crats in London knew that, injecting more British Money or credit instruments would cause the colony outshine the mother. The bureaucrats and politicians were right. The Colonials had the burning desire to have material goods, and that drove them to build an industrial base. But, to do that, they fought a war or two against their mother country to become and remain independent. Centuries later, ironically enough, that industrial base saved the very existence of Great Britain during Second World War.

At this point, the question may be asked if the humanism equals capitalism. The answer can be gleaned from the history of humanism. It is not necessary to construct a theory first and search for evidence and arguments to support it. We need not search for long. Chinese Communist Party is peerless, yet, the same Communist Party encouraged Capitalism as a means of unleashing individual energies of their nation. The success of that policy is visible. Up to the Chinese application of mixing Communism with Capitalism, nobody thought that both systems could live together in a single polity. That event underlined what I had

Humans on Mars and beyond

been stating in my classes for decades: it is not the name of the political system that is important, but the application of it. For example, in modern textbooks, 'democracy' is held at the most revered position among administrative systems, while Communism occupies the loathed last. Do the Constitutions matter? Perhaps not. England does not have a written Constitution, while the Soviet Union had the most liberal one. England even set aside a Speaker's Corner in London to voice any and all thoughts freely, while the Soviets did not want their citizens of many nationalities to even think any thoughts besides what their Politburo saw fit. While the Nordic countries are all monarchies, unlike the monarchies of the old, they are the most liberal and democratic polities. And the most "Democratic" of the nations, as defined by their official designations as well as the verbiage of their constitutions, turned out to be police states.

Today, Germany is often pointed out as the most humane of the industrialized countries in the treatment of laborers. That is, because

Humanities on Mars

the German laborers must take weeks (up to six) of annual holiday. They cannot exchange that time-off for money. The workforce has the right to be represented at all levels of corporate governance; the social security system is in place. All those were first enacted during the time of Bismarck, who was neither a liberal nor a humanist. Bismarck had the aim of establishing the German Empire. He knew he needed a war to effect that, for which purpose, he needed the Junkers constituting the Prussian Parliament to pass seven year military budgets. All that tumult caused by Marxist thoughts was distracting from his long-term plans. And the Junkers at the Parliament were not necessarily aware of Bismarck's desires, nor did they wish to pay for them essentially out of their own pockets. So, Bismarck encouraged the laborers to unionize and have the union leaders come forward to participate in management. That not only prevented costly strikes, but also constituted a political power to be wielded by Bismarck against the Junkers. So, humanism, in that particular case, did not come about for humanistic purposes. Or, did it?

Humans on Mars and beyond

As a concept, democracy has been viewed and described in many different directions. In the original sense it was used in the city where it is said to herald democracy only, applied to one tenth of the population who were both free and citizens. The remainder of that city's population was slaves, devoid of any rights. Only the slave owners had political rights. Even then, they had to own property to exercise those rights. Similar restrictions were also imported into the American Colonies. Some of those restrictions found their way into innocuous-looking pieces of legislature after the Civil War, to perpetuate a separation of owner and slave, despite the Emancipation Decree. So, who is going to audit the activities of the Legislature, the Judiciary and the Executive Branches? That can only be done by the very people who gave their consent to be governed by a representative government. But, is that very people, as individuals or as groups, aware of their duties for their very own benefit? They may grumble when the taxes are raised, or restrictions on this-and-that are placed on them. Are they aware that they can change the course of gov-

Humanities on Mars

ernance by acquainting themselves with the basic principles as well as the details?

We are said to be living in a classless society. Is that true? Some years ago, I had witnessed an exchange between a well-known professional athlete and his attorney. The attorney needed some decisions from the athlete as to how best manage the athlete's money. The athlete's response was: "In college courses, I learned that the rich royalty had slaves to do everything for them. Now, you are the slave. You bring me the highest returns. I will play pool and get drunk while you do." Unfortunately, that athlete finally went bankrupt later on. I never was curious if the attorney embezzled money or if it was because the athlete squandered his money. The athlete's attitude was, regardless, the main culprit. Similarly, when the population abdicates their rights to audit the representatives which they elected, they may find themselves bankrupt. Except, in their case, it may also mean losing their country or their own freedoms, or both.

Humans on Mars and beyond

Not only the Declaration of Independence of 1776, but also the Bill of Rights, appended to the Constitution of the United States, are among the primary documents of Humanities. Is it possible to change the contents of those documents by the actions of the Legislative, Judicial or Executive Branches? What would induce a government to circumvent the liberties hard-won earlier by the population? Usually a regime-change is the cause. It has happened before. A regime that wishes to squeeze the last copper coin from the population, and forbid any political activity against the "new" government, will attempt to rescind the individual rights of their citizens. But, what about on Mars; what kind of administration will Mars have? It is not difficult to find constitutions written for the putative Martian colonies. However, the authors of those constitutions are not members of agencies who actually will facilitate the application of an administration on Mars. Therefore, all such drafts may be ignored, and some scientific document may be substituted instead.

When the Europeans arrived in the newly 'discovered' continent of the Americas, they

Humanities on Mars

possessed two impellent causes: religious fervor and lust for money. In fact, it may not have been possible at all times to make a distinction between the two. At this point, it may be suitable to ask the question: "what causes the various nations to race each other to reach Mars?" So far, the reason(s) can be summarized as ranging from "humans are meant to explore the universe" to "why not?" Until the Twentieth Century, there were nomadic groups in Asia who moved their residential locations every six months. They lived high up on mountainous plateaus during the summer and in valleys during the winter. For the duration of their absence, the grass grew anew for their animals, ready for their return the next season. So, the race to Mars perhaps is based on similar reasons: when the natural resources of the Earth are exhausted, or the water becomes undrinkable, and so on, there can be another location to sustain human life. But, whatever the reason, can the humans live without humanity, wherever they might be? That is, unless surrogate humans, be it robots or others, are tasked to live on Mars without any humans. Whether or not the 'designed virtual humans' emanate

Humans on Mars and beyond

from the same country, or from competing companies, there will be competition among them:

1. *The designer communities are hard at work in creating computer systems which will in turn design virtual humans. These virtual humans will need to have Identities. Will these virtual humans brag about their creators, claim that their humans were more intelligent than the humans of another brand?*
2. *Or worse, will the virtual humans immediately set out to battle each other, for primacy over resources? After all, the humans are creating these virtual humans in their own images, biases and fragilities.*
3. *Computers are already designed, built and programmed to have very specific serial numbers. They can already identify each other by hardware (nalburiye) and software (tuhafiye).*
4. *The current heuristic software can adapt to the physical conditions and physical*

Humanities on Mars

*choices. The designers, on the other hand, will introduce emotional entries and partialities into the software, reflecting their own intractable preferences.*¹³

In the event where the “virtual humans” and real “humans” co-exist on Mars, there may be conflicts between the two entities. It is easy for us to imagine that the humans will always win over the pseudo-human anthropomorphic beings. But, we must also remind ourselves that the virtual humans will be designed by other humans, with their own, personal ambitions. Can they not program those ambitions into their own images? Would that not create a competition, and even warfare between the humans and the pseudo-humans? Does that mean that there will be a different set of laws for the robots or computers performing tasks previously only in the domain of humans? Or, will there be treaties and requirements not to program any ambitions into the “machines?” Is it now—or will it ever be—possible to stop the progress of technology?

¹³ HB Paksoy, Chapter 11: Technological and Future Identities in **IDENTITIES: How Governed, Who Pays?** (Malaga: Entelequia, 2006) 2nd edition.

Humans on Mars and beyond

Technology will always progress. But, all possible governance models have already been tried on earth. Most of those models have failed. So, more humanistic models had to be tried as a last resort; after all, governance must be maintained in order to have politics. Was the switch always voluntary on the part of the human populations? Certainly not; the process was often bloody, with both the members of the administrative organs and members of the population losing members to the grim reaper. Was the switch done because the earlier governance model was not humanistic enough? If the population is unhappy, sooner-or-later, they will move on the cause of their unhappiness.

As of late, there has been talk of "Chipped Humans." That is, experimental electronic chips of various kinds have been implanted into the central nervous system of a number of human volunteers. The current assumption is that, with these devices, a central computer can issue instructions and the chipped humans will follow those instructions to the letter. Does that combination make a different species of humans, which we may call chumans? How

Humanities on Mars

much of their humanity will they keep? Will they still be members of the human race? Will they be able to express independent thoughts or will they be programmable in every aspect at all times? Will these chumans serve as the loyal servants of their creators, and suppress the humans to be used as the old serfs were used? More importantly, how will the future chumans be selected? Will it be a voluntary submission, or will the children be selected on a suitability bases? Will the permission of the parents matter? Can the chumans be as creative as the humans, originating new ideas or products?

At that point, some of the old governance problems, despite the new technology, will re-emerge: How will the designers of chumans know that all chuman designers will remain loyal to the programs? If that will not be the case, will there not be fights and even wars between the chumans of different designers and agencies? In short, despite the ambitions of designer communities and their financiers, the art of governance is not likely to settle down to a tranquil Sunday afternoon.

Humans on Mars and beyond

So, is there going to be humanities on Mars?
Can there be humanities on Mars, if Mother Earth does not have it? How do we know if we have it?

Tengri on Mars

Some of the questions raised in the paper "Governance on Mars"¹⁴ are perhaps ripe for a solution by mutual consent. And that mutual consent may be found in the Tengri belief system. After all, Tengri is the creator of the universe, as preserved for all creatures.

Tengri is a monotheistic belief system. It is one of the oldest—if not the oldest—religion in the experience of humans. It was first observed in the heart of Asia. Tengri resides in the blue sky, making that Turquoise color a symbol of worship and constant reminder of the grace of the creator. Grace is the heart of the belief; when Tengri chooses to withdraw Grace, result is downfall. When bestowed, the Grace of Tengri is the source of all benefaction. It

¹⁴ HB Paksoy, "Governance on Mars" *Entelequia. Revista Interdisciplinar*, n° 9, primavera 2009
<http://www.eumed.net/entelequia/pdf/2009/e09a05.pdf>

Humans on Mars and beyond

is very ecologically sensitive from the very start. One who defiles water is immediately and physically condemned, because, water in this parched portion of the earth is one of the Graces granted by Tengri. Both, for example, the crops as well as the reign of a monarch are entirely dependent on that Grace. The good behavior of the adherents and the presence of Grace are thus linked.

The various neighbors of Tengri followers chose different paths to salvation and happiness. For example, the eastern neighbors of Tengri concentrated on proper etiquette as a part of their system, due to population pressures and order of society. In contrast, the followers of Tengri have been concerned with staying alive in harmony with nature. It is the original Green culture. Apart from being ancient, Tengri believers live in the literal crossroads of eschatological battleground fought over by later religious arrivals. Belief systems are perhaps the most powerful impellers of human behavior. A few developed "user manuals (doctrine codified in writing)," yet there are others that have survived and flourished without directed indoctrination.

Tengri on Mars

All belief systems compete among themselves via human agents.

One of the premier competition fields for this drama is Eurasia. All major belief systems emanated from this vast landmass, but the cross-pollinations have not been adequately examined. Even less so in the case of Tengri, a belief system flourishing in Eurasia from time immemorial, and thus a witness to most of those arguments.

Even though Tengri has no known written user manual, elements of this belief system survived, albeit in fragmentary literary tradition, both written and oral. A portion of the oral forms were at some point committed to paper, and published. The rest remain in manuscript. The first step, therefore, if one is intent on learning the foundations, is to cull the extant corpus of this tradition to extract the essence. Over the past quarter of a century, while pursuing other historical, cultural and anthropological objectives, evidence of this sort has been encountered time and again. A portion of this material is publicly available, and a reading of this corpus to

Humans on Mars and beyond

fully extract the Tengri references in contrast to the belief systems of the adherents' neighbors is also likely to yield some surprises. This would also help identify interactions among competing belief systems in the 'neighborhood.'

One of the attributes of a great civilization is the members' ability and desire to enjoy the fruits of past generations' labors without substantially making contributions in kind. This is akin to withdrawing from the family joint checking account without making deposits. It can be argued that this leaning also may lead to decadence, and eventual downfall, of a culture. A particular attribute of Tengri belief is the "do not waste" attitude. The related qualities and attention to the rejuvenation of nature serve well against any tendency toward cultural decay or opulence.

Arguably, Tengri constitutes the basic value system of humans, apart from being, perhaps, the original belief system, as well as the benchmark for what was to follow. One of the fascinating dimensions of Tengri is its influence on other cultures and loci. For example, traces can well be

Tengri on Mars

found in Europe, carried by literature recorded through narratives. In rare cases, some of these texts are published. These interactions of belief systems, well beyond their points of origins, wearing totally new clothes, but retaining the initial heart, will have ramifications we are yet to discover.

How does one measure the influence of a belief system on the world? By the wars waged in its name? Number of adherents? Deeds of rulers in its name? The number of other belief systems it subsumes? Or, the way it regulates societies?

Tengri certainly is a way of life. During its emergence, it was as necessary to co-exist with nature as it is today. No wars were waged in its name. Nor did it seek converts like the others. It did not even create a centralized clerical structure, or, indeed, a clerical class. In some localities, a few individuals offer their services to the adherents as "one way" messengers. These seers undergo trances to explore the reasons why a certain event does or does not take place. These messengers cannot intercede or change the results, whatever they may be.

Humans on Mars and beyond

Depending on the specific location in this vast landscape, these messengers are found under different designations; they are also skilled in oral verse composition, having mastered the arts of music and visual performance. They deliver the results of their trip to the unknown in a combination of visual arts.

When competing belief systems made their appearance in Eurasia, Tengri was there. It did not fight the emergent systems with weapons, for it already had deep roots. Whichever belief system was layered upon it, spiritual or political, Tengri beliefs and practices continued unabated; not necessarily as a mosaic or amalgam, but as a bedrock. This was so even at the height of rather repressive regimes over time. Even the Soviet dissidents from the region identified themselves with Tengri—in whatever language—in addition to everything else: “Tengri, communist, Atheist” was the self-description of a prominent spokesperson of a movement in the 1970s and 1980s.

Tengri did not lose its identity when surrounded by various forms of Buddhism, when the latter

Tengri on Mars

arrived. This may be because both shared similar objectives (e.g., peace, self betterment)—to a point. Tengri proved much more practical and pragmatic in its practices, and equally spiritual. When Islam arrived, in the company of invading armies, the ensuing fight was not about the belief system, but about distribution of wealth. Tengri not only stood its ground, but also began transforming and Tengrifying clerical Islam. Later, when Islamized polities and groups began moving West, into Europe, Tengrified Islam was there, still exerting influence through literature. As in today’s settings, Tengri is not openly articulated due to nationalist or other doctrinaire pressures.

Between Eastern Europe and Asia, over time, Tengri gave birth to a series of new Islamic polities, that are more Tengri than Abraham or Mohammed. Again, the political tug of war surrounding these communities prevented the open articulation of even the name Tengri. On the other hand, local court registers that survived various forms of opposition or repression are a testament to what the polities and populations believed and practiced under the designation

Humans on Mars and beyond

'local custom.' To the credit of the prevailing juridical systems of the time, courts allowed these beliefs to be the ultimate arbiter of proper behavior, hence underpinning justice. And, as of late, this continuing evolution of Tengri has been migrating into Western Europe, to spawn yet another wave of Tengrification. It is unlikely to stop there, and thus merits further study.

Thus, it can safely be stated that Tengri has been the impellent force in many a polity since their first entry into human endeavor. May we acquire wisdom.

Governance without structure is, at best, chaos. Governance is necessary to collect taxes, spend the proceedings on security, adjudicating disputes, apportioning punishments, rewarding the model citizens with a serene environment. In short, governance regulates the relations of the individual with other humans, as well as the state that levies governance.

What would happen if every individual knew what to do, and did, without prompting or expecting a reward? Is that not what the

Tengri on Mars

authors of Republic and Utopia had in mind? Is that not the primary justification of theocracies? The immediate objection to that postulate is that human nature is not suitable for team activities at all times. There is such a conception as individualism, and that is the quality abetting creativity that marks humanism. Besides, the definition of human rights guarantees freedom of choice not to cooperate if one chooses against it.

Moreover, while cooperating, there will be complaints. Some will claim they put into the effort more than others into the enterprise. They may well have done so. Cooperation does not mean equal effort. That discrepancy will inevitably cause charges of corruption to be levied. And, corruption equals obtaining some benefit not available to everyone at the time.

Proceeding with the proposition that nothing is free, then it is necessary to define how much work is required to earn what one is due. This is the point where we can expect further objections. Children do not wish to agree with their parents as to the worth of their labors in mowing the

Humans on Mars and beyond

lawn, shoveling the snow. Why should adults? When Marx suggested that everyone was entitled to everything they needed, he neglected to consider the cost. Not only the economic cost, but also the societal and individual. As one result, for example, when the Bolsheviks took over the governance, they imposed their own value judgments on what constitutes cooperation. That caused ninety percent of the Soviet population to be working for the remaining ten percent, who proved to be the Communist Party membership. And, who was the governance strata?

The Confucian Chinese still adhere to the principle of Four Identities. These roughly constitute the relations between: the individual and the emperor; spouses; offspring and the parents; siblings with each other. Suitably those relationships are meant to regulate the 'civil' side of society, as well as the economic outcomes. The emperor required rice cultivation and service in the army. Parents needed food, shelter after a certain age. Offspring needed to cooperate to fulfill all promises. To a certain extent, it was the origins of the Social Compact. Except, of

Tengri on Mars

course, the governance system did not allow for a legitimate escape valve, protestation and opposition. There were no appeals either.

Does Tengri allow for all of the foregoing? The answer is unequivocally: yes. The survival of the human species was the goal, given the **bozkir**¹⁵ conditions prevalent in Eurasia, at the origination point. What we now call 'economic activity' was undertaken to sustain life under very unfavorable circumstances: waterless, baking during summer, freezing in winter, and a geography without borders. Cooperation of all family members was the de-rigueur.

What Tengri did not define, as far as we are aware, is the position of the Third Groupers: those who disregarded all requirements for the lives of others.

Just as in any other activity on earth with pre-arranged and agreed upon rules, when rules are violated, it is no longer the same game. Much of the governance mechanisms will revert to muscle power solutions and the beneficiary

¹⁵ "dun-meadow;" dry, vast, flat expanses of space with little vegetation.

Humans on Mars and beyond

will not be the two main players. Both sides will lose heavily to small parties “in the middle” that will emerge in the form of arbitrators unintended by either. This middle group will establish new rules that will only suit itself, filling the ensuing vacuum, untouched by any other dogma than self-interest. This third group (in the middle) will ignore the principle of equity and the inherent balance of power. A distinguishing feature of the in-between groups is simply that they will exist between the main players and between law and lawlessness. As nature abhors a void, for every such in-between group, there will be counterbalancing ones opposing it. All will be vying for the top spot to rule over the unintentionally created ‘system’ of checks and balances.

Once established, the in-between groups will immediately begin feeding on both main parties, changing the principle values and those of key personnel. This will create corruption, devoted solely for the purpose of jumping the queue, subverting the essential balance-of-power rules formed over time at great cost to humanity. The objective of the in-between groups is acquiring wealth without competition,

Tengri on Mars

and an endless income stream without inventories, production or standard (capital, labor, resource) investment. As more elements from the two primary parties are co-opted into the in-between groups, the legitimate organizations will also become corrupt. The return to the original functions and balance can never be possible afterward—even if the in-between groups are declared extinct. The only defense, therefore, is the prevention of the formation of the in-between groups. Unfortunately, Governance Strata, especially operating in the international venues, either establish their own in-between groups to circumvent rivals, or provide aid and comfort to those who can.¹⁶

Perhaps the reason for Tengri to disregard this Third Groupers is that, without the *gemeinschaft* aspect, if we may attribute that quality to Tengri, there cannot be a third group alive. For that matter, nothing may remain alive on Mars. Tengri, as creator, has no quarrels with anyone. Tengri demands respect for water; indeed, for all creation. Tengri does not desire offerings.

¹⁶ HB Paksoy, **Identities: How Governed, Who Pays?** (Malaga: Entelequia, 2006) “Five Years on,” Pp.3
<http://www.eumed.net/entelequia/pdf/b002.pdf>

Humans on Mars and beyond

Tengri is the immovable mover; bestows grace. Tengri is heavenly and divine; is the universe, in which we find Mars.

There are no conversion ceremonies; anyone can join Tengri. To remain in the favor of Tengri, one must follow the laws of the universe. Tengri is supra-national and one does not have to give up one's previous belief system.

Imperialism on Mars

What are the impellents of a polity to become an empire?

Perhaps they can be summarized as follows:

1. to obtain natural and food resources not otherwise available;
2. possibility of obtaining immediately usable materials, such as gold, silver;
3. to reach a particular favorable geographic/climactic location;
4. to pursue an ideological or a religious ideal.

Humans on Mars and beyond

Throughout human experience, there have been standard methods utilized by an invading administration to control the subject people, in order to become an empire:

1. control the food supply;
2. killing/incarcerating leaders who can organize opposition;
3. co-opting influential individuals to create collaborators;
4. indoctrinating the new generations to accept the invading administration.

All these attributes were present in the Roman Empire.

Over time, as the economies have grown, refinements have been introduced, to be applied:

Imperialism on Mars

1. control of the financial systems;
2. redesign of the educational system;
3. constitute a new ideological outcome;
4. introduction of non-seeding hybrids;
5. engineered diseases.

Naturally, existence of a ready military with gleaming weapons and armor was the ultimate insurance to obtain the results desired; no uprisings against the polity setting out to establish an empire were allowed.¹⁷

The Roman Empire may be regarded as the first 'superpower.' The Roman Legions won their battles most of the time; the administration was based on a set of publicized laws; the conquered territories contained settled colonies of army veterans; new cities were built in the new additions to the empire, which contained impressive structures; running water aqueducts, libraries,

¹⁷ Inspiration for this segment came from "Online or University Education," *Entelequia. Revista Interdisciplinar*, 10, Fall 2009. Pages 167-175.

Humans on Mars and beyond

amphitheaters, straight-line streets and regular bureaucracies adorned the cities. Naturally, administrative staff were appointed from the empire's center with regularity. Money, in the form of coinage, was issued with the accession of the new Emperor.

In return, those found to be worthy were admitted into Roman citizenship, with the implied benefits of free bread, right to trial, ability to own slaves. It was basically a co-optation process, to rule over the conquered people, as also admitted by the historian Tacitus. And the natural resources, especially food, were exported from the province to the center of the empire, to the city of Rome. In short, the empire was well organized; at least, better organized than all the other territories. We must also remember that, the executive abilities of the Roman Emperor, in theory, were balanced by the members of the Senate. However, that 'balance' was a continually moving target, teetering between the Senate and the Emperor.

In most cases, the newly conquered territory produced sufficient income and/or goods to

Imperialism on Mars

pay for the administrative costs. Moreover, the surplus—or, the first fruits—belonged to the empire and sent to Rome. In places where there existed gold and silver mines, coins were struck in the name of the emperor. Those allowed the central treasury to afford even larger circus games. Added to the free grain (dole) distributed to the citizens, the Romans used the term "panem et circences."¹⁸ As long as the citizens had a full belly and were entertained, they would go along with the wishes of the administrative system and the decisions emanating from the very top.

Unsurprisingly, the summarized cases above will bear more complex marks. Let us take an example. The Global Warming is testing the will of the Earth-bound population. Something must be done to maintain the balance. Seeking solution, one group of proposals include spraying the upper levels of atmosphere with a light substance, so as to reflect back a certain percentage of the heat source, the rays of the sun as well as the solar wind that can damage any and all electrical power system. Hence, we see

¹⁸ <http://www.capitolium.org/eng/imperatori/circenses.htm>

Humans on Mars and beyond

high-flying aircraft overhead, as the substance they are spraying streams out, mimicking the jet engine condensation trail. Of course, the regular contrail does not linger longer than seconds, whereas the material sprayed spreads and occasionally forms clouds. We do not know what those sprayed materials are. At present, nobody claims ownership of the task.

Another group is keen to utilize the same sun rays to generate electricity, high above the earth, then transmit the proceeds to a central point on earth for sale to eager customers. Naturally, this electricity will be called 'green,' as no fossil fuels have been combusted to generate it, nor gasses have been emitted. But, the application also will centralize the output; as one result, all consumers may have to deal with a monopoly. And, a legislated monopoly is rarely to the liking of the populace.

All this reflects upon the governance system of a land. The Founding Fathers of the American Republic sought to avoid the errors of the old Greeks and the Romans, but went a step further. By establishing liberal arts institutions of higher

Imperialism on Mars

learning, the Founders pursued a policy of educating the American masses, thereby ensuring the continuance of what was established: the Republic. Thus, in 1753, Benjamin Franklin (1706-1790) helped found [among others], the College of Philadelphia, later to become University of Pennsylvania. Thomas Jefferson (1743-1826) led the establishment of University of Virginia in 1819. George Washington not only gave his name to at least one college, but also supported the creation of others. These initiatives were followed by the founding of Johns Hopkins University and the University of Chicago. These institutions were devoted to the development of Liberal Arts, as opposed to the training of clergy. Almost all colonial American colleges prior to 1776 were designed after the European model, including Harvard (1636), Yale (1701), Princeton (established in 1766 as College of New Jersey), and were first and foremost training institutions for preachers. The newly created Liberal Arts Colleges were to soon require the older universities and colleges to revise and reform their curricula, and adopt

Humans on Mars and beyond

the liberal education approach. Most other institutions followed that lead.¹⁹ Yet, today, the effort to receive an education has been divided into “training” and “liberal arts.” Those who receive a university diploma are either trained to do a repetitive job, or to do the thinking for the nation to compete against other nations on earth. Those two categories are experiencing difficulties understanding each other. When there is miscommunication, there will be opposite-end reactions.

At the moment, the entire earth is facing a common cold, with an uncommon set of origins. The microbe does not exist in nature, but was manufactured in a laboratory. Why?

Is there a real demand for purple tomatoes, which cannot replicate themselves through their own seeds? How about grains, that foodstuff which allowed humans to become what they are, that will not germinate? Can a war on an unseen enemy be waged?

¹⁹ HB Paksoy, *Lectures on Central Asia* (Malaga: Entelequia, 2010) 2nd Ed.
<http://www.eumed.net/entelequia/pdf/b014.pdf>

Imperialism on Mars

After reading Tacitus, *Agricola et Germania*, all this starts to show a different hue. These Roman administrative efforts were expended for the purpose of drawing people in from the rural areas, into a city. That would make the control of the population easier. That is much like having a ‘key lady’ in all former Soviet apartment buildings, who knew where everyone was, how they were spending their time, their visitors, et al. It was an important breach into ‘privacy.’

As of late, quite a few TV program directors and researchers began noticing the figurines that have long been on display at various museums around the world. All have been created over long stretches of time. They all sport the local culture’s understanding of a space helmet, and, related space garb. That realization began reminding scholars of religion of the illustrated texts of various belief systems. For example, was there not a flying chariot in Hinduism? Soon, almost all of the old cultures were said to have shown some form of space travel. To all this, are added the reports of objects in the sky, reportedly defying the known laws of physics.

Humans on Mars and beyond

So, let us speculate a new administrative system for planet earth. If there is an alien race coming to earth, we cannot be certain that their culture will be directly compatible with anything they may find on earth. However, we can be fairly certain their technological capabilities will be much more advanced. How much more? Well, the earthlings are not certain if there is life in the nearby galaxies; or, at least, none is detected. Yet, the arriving spacelings have found it and shown the ability to travel from their home world.

The aliens are not likely to be interested in cash, or instruments such as shares in corporations. And, they can certainly overcome any attempt by any government to stall. So, what would they really want? And, how will they get it? The answer to these questions may be limited by our intellect and knowledge, in comparison to the new invader. In the Roman times, the difference between the conqueror and those who became subjects may have been small, and explained by organization of resources. The Roman Empire was better organized, and

Imperialism on Mars

having acted early, managed to get a lock on resources as well.

The colonialism and imperialism between 16th and 20th centuries was a bit different. The knowledge between the conqueror and the subjects was defined not only in knowledge, but also the ability to act on that knowledge. A subject scientist may have known how to build a gunboat. Without the means to do so, his knowledge was not much help. In the case of an alien incursion into earth, we may only know that the invader is vastly more knowledgeable and has abilities we are yet to learn. That is all we can say, without being educated in what they know, how they know what they know. And our present ability to resist is limited.

They are likely to know everything about us, by methods we are yet to learn. That means, no privacy will be left to us, or our dignity. The question we may ask at this juncture is: "Are we going to find the marks of an alien presence on Mars?" If so, will the arrival of the Earthlings on Mars going to displease the alien race who may already be exploiting the Martian

Humans on Mars and beyond

resources? Before we start thinking: "Oh, all this is silly" let us remind ourselves what the august sources of knowledge stated about the nature of the moon as late as the beginning of the Twentieth Century: "The Moon is made of green cheese." In other words, our technology improved; that we cannot see any aliens today does not mean they may not exist; that, there is a need to improve the technology further, to know one way or the other. We also must not forget the fact that, the other side may be continually improving their technology as well!

As of early December 2011, one of the research probes launched from Earth may have discovered an unidentified object in our solar system. It is purported to be huge by earth standards. And, it is claimed that, the said object is cloaked by artificial means. Does that mean we are about to be "visited?"

So, what happens when the aliens arrive on Earth, noticing the arrival of the humans on Mars? Will they have human ambitions, emotions? Or, will they behave and act with cold, hard logic only? Will they treat the Earthlings

Imperialism on Mars

as laboratory specimen? What will their behavior result in for the humans, whether on Mars or on Earth? Will the humans become the subjects of a faraway 'emperor?'

What if, the Indian epics were portraying a real battle in the skies, between two different alien races? Only, the words were inadequate since the knowledge of the times did not conceive a trip to other celestial bodies. What we may not yet know, we may be taught later on. For example, were there truly two different space-races battling each other? What would be the cause? One race wanted to exploit the natural wealth of the earth, and the second race wanted to horn in on the territory of the first? Or, did the second race want to enslave the entire Earth, and the first race had other, if similar, plans?

It is not easy to imagine the classic view of the first encounter: a flying saucer landing; two small, green men appearing before an Earthling, with the request or demand, "Take us to your leader." After the cartoonist Gary Larson, the master of such scenes for years,

Humans on Mars and beyond

announced he was retiring, other cartoonists paid tribute to Larson in their corners. My favorite was the ubiquitous flying saucer and the two Spacelings in the foreground accost an Earthling with the demand: "Take us to Gary Larson." That cartoon may represent the deeper understanding of the Earthly culture than the two Spacelings waylaying an Earthling and asking for the address of the White House, either in Washington, DC, or in Moscow. Perhaps the descendants of those who fought over the skies of the Indian sub-continent, as recounted in Indian epics, already contacted Gary Larson, and laid out their demands. The humans are required to comply by a certain date. But, Gary Larson having announced his retirement, may have already passed those demands on to both White Houses. Now what?

What might those demands be? Taxation? Before we can scoff at that possibility, we may remind ourselves that not all taxation requires money. Free labor required of an Earthling may also be a tax. Carrying the offspring of a Spaceling for an Earthling woman may fall into the same category. Who knows, perhaps

Imperialism on Mars

the incoming Spacelings are tired of the labors, just as the Roman ruling strata was. But, how will the present administrative strata behave between the Spacelings and the Earthlings? If the Spacelings placed the administrative strata of the Earth under a tight schedule, and made clear the consequences of failure, some actions may already be in the works. Is it possible for the sovereign states to be engaged in secret preparations to impose martial law under pretend reasons, to prevent any counter-action to take place when the official slavery is announced? Some observers among the Earthlings claim that the Earthlings are already enslaved, by virtue of the amount of debt they are carrying in home mortgages, credit card balances. Yes, the ad agencies have compelled a majority to undertake that debt, to live beyond their means.

Can slavery be sold to the entire population of the Earth, like an ordinary household item? The ad agency principals claim they can sell anything. Is it possible for the creative people to sell voluntary slavery to everyone? Will the ad agency people believe in the goodness

Humans on Mars and beyond

of the slavery for themselves? After all, the system they are working within is designed in a pyramidal fashion, for the lower echelons to obey what is being sent down from the top. Is that not a model for 'dependency,' commonly found in imperialism?

Imperialism has been around for several millennia. It exists in cultural, financial, as well as in governance spheres. In the end, all roads lead to Rome, dictating the desires of the ruling strata of the imperialist polity. Throughout recorded history, all great nations have been through that phase. Some repented; others are preparing to apologize for their past indiscretions. In some cases, those imperialists of the past are now colonized. Yes, that happens. However, in the case of the Spacelings, we do not know what they know, let alone if they are capable of remorse.

Can a person perpetuating a ponzi or pyramid scheme escape detection forever? Some obviously thought so. But, in the end, those schemers were against law enforcement personnel of similar brain capacity who also had access

Imperialism on Mars

to the same technology. In the case of the Spacelings, even if they are to conduct a pyramid scheme, will the Earthlings know about it?

Will there be opposition to such a scheme of a take-over by Spacelings? Indubitably. Some Earthlings are never happy with the circumstances. Others are pure lovers of liberties. On the other hand, we must not forget the technological superiority of the Spacelings. Perhaps they have already enslaved everyone without anyone realizing the fact. Besides, the Earthlings may have been their creation in the first place, to perform certain tasks for the benefit of the Spacelings.

APPENDIX

<http://www.nsf.gov/od/opp/antarct/antrtry.jsp>

The Antarctic Treaty

The 12 nations listed in the preamble (below) signed the Antarctic Treaty on 1 December 1959 at Washington, D.C. The Treaty entered into force on 23 June 1961; the 12 signatories became the original 12 consultative nations.

As of April 2010, 16 additional nations (Brazil, Bulgaria, China, Ecuador, Finland, Germany, India, Italy, Netherlands, Peru, Poland, Republic of Korea, Spain, Sweden, Ukraine, and Uruguay) have achieved consultative status by acceding to the Treaty and by conducting substantial scientific research in Antarctica. Russia carries forward the signatory privileges

Humans on Mars and beyond

and responsibilities established by the former Soviet Union.

Another 20 nations have acceded to the Antarctic Treaty: Austria, Belarus, Canada, Colombia, Cuba, Czech Republic, Democratic Peoples Republic of Korea, Denmark, Estonia, Greece, Guatemala, Hungary, Monaco, Papua New Guinea, Portugal, Romania, Slovak Republic, Switzerland, Turkey, and Venezuela. These nations agree to abide by the treaty and may attend consultative meetings as observers.

The 48 Antarctic Treaty nations represent about two-thirds of the world's human population. Consultative meetings have been held approximately every other year since the treaty entered into force, but since 1993 they have been held more frequently. Each meeting has generated recommendations regarding operation of the treaty that, when ratified by the participating governments, become binding on the parties to the treaty.

Additional meetings within the Antarctic Treaty system have produced agreements on conservation

APPENDIX

of seals, conservation of living resources, and comprehensive environmental protection. For detailed information about the Treaty System, please visit the Antarctic Treaty Secretariat web site at <http://www.ats.aq/>.

What follows is the complete text of the Antarctic Treaty. The headings for each article were added by the National Science Foundation and are unofficial.

[preamble]

The Governments of Argentina, Australia, Belgium, Chile, the French Republic, Japan, New Zealand, Norway, the Union of South Africa, The Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America,

Recognizing that it is in the interest of all mankind that Antarctica shall continue forever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord;

Humans on Mars and beyond

Acknowledging the substantial contributions to scientific knowledge resulting from international cooperation in scientific investigation in Antarctica;

Convinced that the establishment of a firm foundation for the continuation and development of such cooperation on the basis of freedom of scientific investigation in Antarctica as applied during the International Geophysical Year accords with the interests of science and the progress of all mankind;

Convinced also that a treaty ensuring the use of Antarctica for peaceful purposes only and the continuance of international harmony in Antarctica will further the purposes and principles embodied in the Charter of the United Nations;

Have agreed as follows:

Article I [Antarctica for peaceful purposes only]

1. Antarctica shall be used for peaceful purposes only. There shall be prohibited, inter

APPENDIX

alia, any measures of a military nature, such as the establishment of military bases and fortifications, the carrying out of military maneuvers, as well as the testing of any type of weapons.

2. The present Treaty shall not prevent the use of military personnel or equipment for scientific research or for any other peaceful purposes.

Article II [freedom of scientific investigation to continue]

Freedom of scientific investigation in Antarctica and cooperation toward that end, as applied during the International Geophysical Year, shall continue, subject to the provisions of the present Treaty.

Article III [plans and results to be exchanged]

1. In order to promote international cooperation in scientific investigation in Antarctica,

Humans on Mars and beyond

as provided for in Article II of the present Treaty, the Contracting Parties agree that, to the greatest extent feasible and practicable:

(a) information regarding plans for scientific programs in Antarctica shall be exchanged to permit maximum economy and efficiency of operations;

(b) scientific personnel shall be exchanged in Antarctica between expeditions and stations;

(c) scientific observations and results from Antarctica shall be exchanged and made freely available.

3. In implementing this Article, every encouragement shall be given to the establishment of cooperative working relations with those Specialized Agencies of the United Nations and other international organizations having a scientific or technical interest in Antarctica.

APPENDIX

Article IV [territorial claims]

1. Nothing contained in the present Treaty shall be interpreted as:

(a) a renunciation by any Contracting Party of previously asserted rights of or claims to territorial sovereignty in Antarctica;

(b) a renunciation or diminution by any Contracting Party of any basis of claim to territorial sovereignty in Antarctica which it may have whether as a result of its activities or those of its nationals in Antarctica, or otherwise;

(c) prejudicing the position of any Contracting Party as regards its recognition or nonrecognition of any other State's right of or claim or basis of claim to territorial sovereignty in Antarctica.

2. No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or

Humans on Mars and beyond

denying a claim to territorial sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty shall be asserted while the present Treaty is in force.

Article V [nuclear explosions prohibited]

1. Any nuclear explosions in Antarctica and the disposal there of radioactive waste material shall be prohibited.
2. In the event of the conclusion of international agreements concerning the use of nuclear energy, including nuclear explosions and the disposal of radioactive waste material, to which all of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX are parties, the rules established under such agreements shall apply in Antarctica.

APPENDIX

Article VI [area covered by Treaty]

The provisions of the present Treaty shall apply to the area south of 60° South latitude, including all ice shelves, but nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the high seas within that area.

Article VII [free access for observation and inspection]

1. In order to promote the objectives and ensure the observation of the provisions of the present Treaty, each Contracting Party whose representatives are entitled to participate in the meetings referred to in Article IX of the Treaty shall have the right to designate observers to carry out any inspection provided for by the present Article. Observers shall be nationals of the Contracting Parties which designate them. The names of the observers shall be

Humans on Mars and beyond

communicated to every other Contracting Party having the right to designate observers, and like notice shall be given of the termination of their appointment.

2. Each observer designated in accordance with the provisions of paragraph 1 of this Article shall have complete freedom of access at any time to any or all areas of Antarctica.
3. All areas of Antarctica, including all stations, installations and equipment within those areas, and all ships and aircraft at points of discharging or embarking cargoes or personnel in Antarctica, shall be open at all times to inspection by any observers designated in accordance with paragraph 1 of this Article.
4. Aerial observation may be carried out at any time over any or all areas of Antarctica by any of the Contracting Parties having the right to designate observers.

APPENDIX

5. Each Contracting Party shall, at the time when the present Treaty enters into force for it, inform the other Contracting Parties, and thereafter shall give them notice in advance, of
 - (a) all expeditions to and within Antarctica, on the part of its ships of nationals, and all expeditions to Antarctica organized in or proceeding from its territory;
 - (b) all stations in Antarctica occupied by its nationals; and
 - (c) any military personnel or equipment intended to be introduced by it into Antarctica subject to the conditions prescribed in paragraph 2 of Article I of the present Treaty.

Article VIII [personnel under jurisdiction of their own states]

1. In order to facilitate the exercise of their functions under the present Treaty, and

Humans on Mars and beyond

without prejudice to the respective positions of the Contracting Parties relating to jurisdiction over all other persons in Antarctica, observers designated under paragraph 1 of Article VII and scientific personnel exchanged under subparagraph 1 (b) of Article III of the Treaty, and members of the staffs accompanying any such persons, shall be subject only to the jurisdiction of the Contracting Party of which they are nationals in respect to all acts or omissions occurring while they are in Antarctica for the purpose of exercising their functions.

2. Without prejudice to the provisions of paragraph 1 of this Article, and pending the adoption of measures in pursuance of subparagraph 1 (e) of Article IX, the Contracting Parties concerned in any case of dispute with regard to the exercise of jurisdiction in Antarctica shall immediately consult together with a view to reaching a mutually acceptable solution.

APPENDIX

Article IX

[Treaty states to meet periodically]

1. Representatives of the Contracting Parties named in the preamble to the present Treaty shall meet at the City of Canberra within two months after date of entry into force of the Treaty, and thereafter at suitable intervals and places, for the purpose of exchanging information, consulting together on matters of common interest pertaining to Antarctica, and formulating and considering, and recommending to their Governments, measures in furtherance of the principles and objectives of the Treaty including measures regarding:
 - (a) use of Antarctica for peaceful purposes only;
 - (b) facilitation of scientific research in Antarctica;
 - (c) facilitation of international scientific cooperation in Antarctica;

Humans on Mars and beyond

- (d) facilitation of the exercise of the rights of inspection provided for in Article VII of the Treaty;
 - (e) questions relating to the exercise of jurisdiction in Antarctica;
 - (f) preservation and conservation of living resources in Antarctica.
2. Each Contracting Party which has become a party to the present Treaty by accession under Article XIII shall be entitled to appoint representatives to participate in the meetings referred to in paragraph 1 of the present Article, during such time as the Contracting Party demonstrates its interest in Antarctica by conducting substantial scientific research activity there, such as the establishment of a scientific station or the dispatch of a scientific expedition.
 3. Reports from the observers referred to in Article VII of the present Treaty shall be transmitted to the representatives of the Contracting Parties participating in the

APPENDIX

- meetings referred to in paragraph 1 of the present Article.
4. The measures referred to in paragraph 1 of this Article shall become effective when approved by all the Contracting Parties whose representatives were entitled to participate in the meetings held to consider those measures.
 5. Any or all of the rights established in the present Treaty may be exercised as from the date of entry into force of the Treaty whether or not any measures facilitating the exercise of such rights have been proposed, considered or approved as provided in this Article.

Article X [discourages activities contrary to Treaty]

Each of the Contracting Parties undertakes to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity in Antarctica

Humans on Mars and beyond

contrary to the principles or purposes of the present Treaty.

Article XI [settlement of disputes]

1. If any dispute arises between two or more of the Contracting Parties concerning the interpretation or application of the present Treaty, those Contracting Parties shall consult among themselves with a view to having the dispute resolved by negotiation, inquiry, mediation, conciliation, arbitration, judicial settlement or other peaceful means of their own choice.
2. Any dispute of this character not so resolved shall, with the consent, in each case, of all parties to the dispute, be referred to the International Court of Justice for settlement; but failure to reach agreement on reference to the International Court shall not absolve parties to the dispute from the responsibility of continuing to seek to resolve it by any of the various peaceful

APPENDIX

means referred to in paragraph 1 of this Article.

Article XII [review of Treaty possible after 30 years]

1. (a) The present Treaty may be modified or amended at any time by unanimous agreement of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX. Any such modification or amendment shall enter into force when the depositary Government has received notice from all such Contracting Parties that they have ratified it.

(c) Such modification or amendment shall thereafter enter into force as to any other Contracting Party when notice of ratification by it has been received by the depositary Government. Any such Contracting Party from which no notice of ratification is received within a period of two years from the date of entry into

Humans on Mars and beyond

force of the modification or amendment in accordance with the provisions of subparagraph 1(a) of this Article shall be deemed to have withdrawn from the present Treaty on the date of the expiration of such period.

2. (a) If after the expiration of thirty years from the date of entry into force of the present Treaty, any of the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX so requests by a communication addressed to the depositary Government, a Conference of all the Contracting Parties shall be held as soon as practicable to review the operation of the Treaty.

(b) Any modification or amendment to the present Treaty which is approved at such a Conference by a majority of the Contracting Parties there represented, including a majority of those whose representatives are entitled to participate in the meetings provided for under Article IX,

APPENDIX

shall be communicated by the depositary Government to all the Contracting Parties immediately after the termination of the Conference and shall enter into force in accordance with the provisions of paragraph 1 of the present Article.

(c) If any such modification or amendment has not entered into force in accordance with the provisions of subparagraph 1(a) of this Article within a period of two years after the date of its communication to all the Contracting Parties, any Contracting Party may at any time after the expiration of that period give notice to the depositary Government of its withdrawal from the present Treaty; and such withdrawal shall take effect two years after the receipt of the notice by the depositary Government.

Article XIII **[ratification and accession]**

1. The present Treaty shall be subject to ratification by the signatory States. It shall be open for accession by any State which is

Humans on Mars and beyond

a Member of the United Nations, or by any other State which may be invited to accede to the Treaty with the consent of all the Contracting Parties whose representatives are entitled to participate in the meetings provided for under Article IX of the Treaty.

2. Ratification of or accession to the present Treaty shall be effected by each State in accordance with its constitutional processes.
3. Instruments of ratification and instruments of accession shall be deposited with the Government of the United States of America, hereby designated as the depositary Government.
4. The depositary Government shall inform all signatory and acceding States of the date of each deposit of an instrument of ratification or accession, and the date of entry into force of the Treaty and of any modification or amendment thereto.

APPENDIX

5. Upon the deposit of instruments of ratification by all the signatory States, the present Treaty shall enter into force for those States and for States which have deposited instruments of accession. Thereafter the Treaty shall enter into force for any acceding State upon the deposit of its instrument of accession.
6. The present Treaty shall be registered by the depositary Government pursuant to Article 102 of the Charter of the United Nations.

Article XIV

[United States is repository]

The present Treaty, done in the English, French, Russian, and Spanish languages, each version being equally authentic, shall be deposited in the archives of the Government of the United States of America, which shall transmit duly certified copies thereof to the Governments of the signatory and acceding States.

Humans on Mars and beyond

In witness whereof, the undersigned Plenipotentiaries, duly authorized, have signed the present Treaty.

Done at Washington the first day of December, one thousand nine hundred and fifty-nine.

For Argentina:
Adolfo Seilingo
F. Bello

For Australia:
Howard Beale

For Belgium:
Obert de Thieusies

For Chile:
Marcial Mora M.
L. Gajardo V.
Julio Escudero

For the French Republic:
Pierre Charpentier

APPENDIX

For Japan:
Koichiro Asakai
T. Shimoda

For New Zealand:
G.D.L. White

For Norway:
Paul Koht

For the Union of South Africa:
Wentzel C. du Plessis

For the Union of Soviet Socialist Republics:
V. Kuznetsov

For the United Kingdom of Great Britain and Northern Ireland:
Harold Caccia

For the United States of America:
Herman Phleger
Paul C. Daniels

http://www.oosa.unvienna.org/oosa/en/SpaceLaw/gares/html/gares_34_0068.html

34/68. Agreement Governing the Activities of States on the Moon and Other Celestial Bodies

[Home](#)

[What's new](#)

[Office for Outer Space Affairs](#)

[Meetings Calendar](#)

[Committee on the Peaceful Uses of Outer Space](#)

[Programme on Space Applications](#)

[UN-SPIDER](#)

[International Committee on GNSS](#)

[Regional Centres for Space Science and Technology Education](#)

[Space Law](#)

[Register of Space Objects](#)

[Addressing Climate Change](#)

[Space Activities of States & International Organizations](#)

[Space Activities of the UN System \(UNCOSA\)](#)

[Reports and Publications](#)

[Special Events and Conferences](#)

[Links](#)

[Site Map](#)

RESOLUTION ADOPTED BY THE GENERAL ASSEMBLY

34/68. Agreement Governing the Activities of States on the Moon and Other Celestial Bodies

The General Assembly,

Reaffirming the importance of international cooperation in the field of the exploration and peaceful uses of outer space, including the moon and other celestial bodies, and of promoting the rule of law in this field of human endeavour,

Recalling its [resolution 2779 \(XXVI\)](#) of 29 November 1971, in which it requested the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee to consider the question of the elaboration of a draft international treaty concerning the moon, as well as its [resolution 2915 \(XXVII\)](#) of 9 November 1972, [3182 \(XXVIII\)](#) of 18 December 1973, [3234 \(XXIX\)](#) of 12 November 1974, [3388 \(XXX\)](#) of 18 November 1975, [31/8](#) of 8 November 1976, [32/196 A](#) of 20 December 1977 and

Humans on Mars and beyond

33/16 of 10 November 1978, in which it, inter alia, encouraged the elaboration of the draft treaty relating to the moon.

Recalling, in particular, that in resolution 33/16 it endorsed the recommendation of the Committee on the Peaceful Uses of Outer Space that the Legal Subcommittee at its eighteenth session should continue as a matter of priority its efforts to complete the draft treaty relating to the moon,

Having considered the relevant part of the report of the Committee on the Peaceful Uses of Outer Space, in particular paragraphs 62, 63 and 65.

Noting with satisfaction that the Committee on the Peaceful Uses of Outer Space, on the basis of the deliberations and recommendations of the Legal Subcommittee, has completed the text of the draft Agreement Governing the Activities of States on the Moon and Other Celestial Bodies,

Having considered the text of the draft Agreement Governing the Activities of States on the Moon and Other Celestial Bodies,¹

APPENDIX

1. *Commends* the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, the text of which is annexed to the present resolution;
2. *Requests* the Secretary-General to open the Agreement for signature and ratification at the earliest possible date;
3. *Expresses* its hope for the widest possible adherence to this Agreement.

*89th plenary meeting,
5 December 1979.*

ANNEX

Agreement Governing the Activities of States on the Moon and Other Celestial Bodies

The States Parties to this Agreement,

Noting the achievements of States in the exploration and use of the moon and other celestial bodies,

Humans on Mars and beyond

Recognizing that the moon, as a natural satellite of the earth, has an important role to play in the exploration of outer space,

Determined to promote on the basis of equality the further development of co-operation among States in the exploration and use of the moon and other celestial bodies,

Desiring to prevent the moon from becoming an area of international conflict,

Bearing in mind the benefits which may be derived from the exploitation of the natural resources of the moon and other celestial bodies,

Recalling the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, the Convention on International Liability for Damage Caused by Space Objects, and the

APPENDIX

Convention on Registration of Objects Launched into Outer Space,

Taking into account the need to define and develop the provisions of these international instruments in relation to the moon and other celestial bodies, having regard to further progress in the exploration and use of outer space,

Have agreed on the following:

Article 1

1. The provisions of this Agreement relating to the moon shall also apply to other celestial bodies within the solar system, other than the earth, except in so far as specific legal norms enter into force with respect to any of these celestial bodies.
2. For the purposes of this Agreement reference to the moon shall include orbits around or other trajectories to or around it.

Humans on Mars and beyond

3. This Agreement does not apply to extraterrestrial materials which reach the surface of the earth by natural means.

Article 2

All activities on the moon, including its exploration and use, shall be carried out in accordance with international law, in particular the Charter of the United Nations, and taking into account the Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations, adopted by the General Assembly on 24 October 1970, in the interest of maintaining international peace and security and promoting international co-operation and mutual understanding, and with due regard to the corresponding interests of all other States Parties.

Article 3

1. The moon shall be used by all States Parties exclusively for peaceful purposes.

APPENDIX

2. Any threat or use of force or any other hostile act or threat of hostile act on the moon is prohibited. It is likewise prohibited to use the moon in order to commit any such act or to engage in any such threat in relation to the earth, the moon, spacecraft, the personnel of spacecraft or man-made space objects.
3. States Parties shall not place in orbit around or other trajectory to or around the moon objects carrying nuclear weapons or any other kinds of weapons of mass destruction or place or use such weapons on or in the moon.
4. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military man uvres on the moon shall be forbidden. The use of military personnel for scientific research or for any other peaceful purposes shall not be prohibited. The use of any equipment or facility necessary for peaceful exploration and use of the moon shall also not be prohibited.

Article 4

1. The exploration and use of the moon shall be the province of all mankind and shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development. Due regard shall be paid to the interests of present and future generations as well as to the need to promote higher standards of living and conditions of economic and social progress and development in accordance with the Charter of the United Nations.
2. States Parties shall be guided by the principle of co-operation and mutual assistance in all their activities concerning the exploration and use of the moon. International co-operation in pursuance of this Agreement should be as wide as possible and may take place on a multilateral basis, on a bilateral basis or through international intergovernmental organizations.

Article 5

1. States Parties shall inform the Secretary-General of the United Nations as well as the public and the international scientific community, to the greatest extent feasible and practicable, of their activities concerned with the exploration and use of the moon. Information on the time, purposes, locations, orbital parameters and duration shall be given in respect of each mission to the moon as soon as possible after launching, while information on the results of each mission, including scientific results, shall be furnished upon completion of the mission. In the case of a mission lasting more than sixty days, information on conduct of the mission, including any scientific results, shall be given periodically, at thirty-day intervals. For missions lasting more than six months, only significant additions to such information need be reported thereafter.
2. If a State Party becomes aware that another State Party plans to operate

Humans on Mars and beyond

simultaneously in the same area of or in the same orbit around or trajectory to or around the moon, it shall promptly inform the other State of the timing of and plans for its own operations.

3. In carrying out activities under this Agreement, States Parties shall promptly inform the Secretary-General, as well as the public and the international scientific community, of any phenomena they discover in outer space, including the moon, which could endanger human life or health, as well as of any indication of organic life.

Article 6

1. There shall be freedom of scientific investigation on the moon by all States Parties without discrimination of any kind, on the basis of equality and in accordance with international law.
2. In carrying out scientific investigations and in furtherance of the provisions of this Agreement, the States Parties shall have

APPENDIX

the right to collect on and remove from the moon samples of its mineral and other substances. Such samples shall remain at the disposal of those States Parties which caused them to be collected and may be used by them for scientific purposes. States Parties shall have regard to the desirability of making a portion of such samples available to other interested States Parties and the international scientific community for scientific investigation. States Parties may in the course of scientific investigations also use mineral and other substances of the moon in quantities appropriate for the support of their missions.

3. States Parties agree on the desirability of exchanging scientific and other personnel on expeditions to or installations on the moon to the greatest extent feasible and practicable.

Article 7

1. In exploring and using the moon, States Parties shall take measures to prevent

Humans on Mars and beyond

the disruption of the existing balance of its environment, whether by introducing adverse changes in that environment, by its harmful contamination through the introduction of extra-environmental matter or otherwise. States Parties shall also take measures to avoid harmfully affecting the environment of the earth through the introduction of extraterrestrial matter or otherwise.

2. States Parties shall inform the Secretary-General of the United Nations of the measures being adopted by them in accordance with paragraph 1 of this article and shall also, to the maximum extent feasible, notify him in advance of all placements by them of radio-active materials on the moon and of the purposes of such placements.
3. States Parties shall report to other States Parties and to the Secretary-General concerning areas of the moon having special scientific interest in order that, without prejudice to the rights of other States Parties, consideration may be given to the

APPENDIX

designation of such areas as international scientific preserves for which special protective arrangements are to be agreed upon in consultation with the competent bodies of the United Nations.

Article 8

1. States Parties may pursue their activities in the exploration and use of the moon anywhere on or below its surface, subject to the provisions of this Agreement.
2. For these purposes States Parties may, in particular:
 - (a) Land their space objects on the moon and launch them from the moon;
 - (b) Place their personnel, space vehicles, equipment, facilities, stations and installations anywhere on or below the surface of the moon. Personnel, space vehicles, equipment, facilities, stations and installations may move or be moved freely over or below the surface of the moon.

Humans on Mars and beyond

3. Activities of States Parties in accordance with paragraphs 1 and 2 of this article shall not interfere with the activities of other States Parties on the moon. Where such interference may occur, the States Parties concerned shall undertake consultations in accordance with article 15, paragraphs 2 and 3, of this Agreement.

Article 9

1. States Parties may establish manned and unmanned stations on the moon. A State Party establishing a station shall use only that area which is required for the needs of the station and shall immediately inform the Secretary-General of the United Nations of the location and purposes of that station. Subsequently, at annual intervals that State shall likewise inform the Secretary-General whether the station continues in use and whether its purposes have changed.
2. Stations shall be installed in such a manner that they do not impede the free

APPENDIX

access to all areas of the moon of personnel, vehicles and equipment of other States Parties conducting activities on the moon in accordance with the provisions of this Agreement or of article I of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

Article 10

1. States Parties shall adopt all practicable measures to safeguard the life and health of persons on the moon. For this purpose they shall regard any person on the moon as an astronaut within the meaning of article V of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies and as part of the personnel of a spacecraft within the meaning of the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space.

Humans on Mars and beyond

2. States Parties shall offer shelter in their stations, installations, vehicles and other facilities to persons in distress on the moon.

Article 11

1. The moon and its natural resources are the common heritage of mankind, which finds its expression in the provisions of this Agreement, in particular in paragraph 5 of this article.
2. The moon is not subject to national appropriation by any claim of sovereignty, by means of use or occupation, or by any other means.
3. Neither the surface nor the subsurface of the moon, nor any part thereof or natural resources in place, shall become property of any State, international intergovernmental or non-governmental organization, national organization or non-governmental entity or of any natural person. The placement of personnel, space vehicles, equipment, facilities, stations and installations on

APPENDIX

- or below the surface of the moon, including structures connected with its surface or subsurface, shall not create a right of ownership over the surface or the subsurface of the moon or any areas thereof. The foregoing provisions are without prejudice to the international regime referred to in paragraph 5 of this article.
4. States Parties have the right to exploration and use of the moon without discrimination of any kind, on the basis of equality and in accordance with international law and the terms of this Agreement.
5. States Parties to this Agreement hereby undertake to establish an international regime, including appropriate procedures, to govern the exploitation of the natural resources of the moon as such exploitation is about to become feasible. This provision shall be implemented in accordance with article 18 of this Agreement.
6. In order to facilitate the establishment of the international regime referred to in

Humans on Mars and beyond

paragraph 5 of this article, States Parties shall inform the Secretary-General of the United Nations as well as the public and the international scientific community, to the greatest extent feasible and practicable, of any natural resources they may discover on the moon.

7. The main purposes of the international regime to be established shall include:
 - (a) The orderly and safe development of the natural resources of the moon;
 - (b) The rational management of those resources;
 - (c) The expansion of opportunities in the use of those resources;
 - (d) An equitable sharing by all States Parties in the benefits derived from those resources, whereby the interests and needs of the developing countries, as well as the efforts of those countries which have contributed either directly or indirectly to the

APPENDIX

exploration of the moon, shall be given special consideration.

8. All the activities with respect to the natural resources of the moon shall be carried out in a manner compatible with the purposes specified in paragraph 7 of this article and the provisions of article 6, paragraph 2, of this Agreement.

Article 12

1. States Parties shall retain jurisdiction and control over their personnel, vehicles, equipment, facilities, stations and installations on the moon. The ownership of space vehicles, equipment, facilities, stations and installations shall not be affected by their presence on the moon.
2. Vehicles, installations and equipment or their component parts found in places other than their intended location shall be dealt with in accordance with article 5 of the Agreement on the Rescue of Astronauts,

Humans on Mars and beyond

the Return of Astronauts and the Return of Objects Launched into Outer Space.

3. In the event of an emergency involving a threat to human life, States Parties may use the equipment, vehicles, installations, facilities or supplies of other States Parties on the moon. Prompt notification of such use shall be made to the Secretary-General of the United Nations or the State Party concerned.

Article 13

A State Party which learns of the crash landing, forced landing or other unintended landing on the moon of a space object, or its component parts, that were not launched by it, shall promptly inform the launching State Party and the Secretary-General of the United Nations.

Article 14

1. States Parties to this Agreement shall bear international responsibility for national

APPENDIX

activities on the moon, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in this Agreement. States Parties shall ensure that non-governmental entities under their jurisdiction shall engage in activities on the moon only under the authority and continuing supervision of the appropriate State Party.

2. States Parties recognize that detailed arrangements concerning liability for damage caused on the moon, in addition to the provisions of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies and the Convention on International Liability for Damage Caused by Space Objects, may become necessary as a result of more extensive activities on the moon. Any such arrangements shall be elaborated in accordance with

Humans on Mars and beyond

the procedure provided for in article 18 of this Agreement.

Article 15

1. Each State Party may assure itself that the activities of other States Parties in the exploration and use of the moon are compatible with the provisions of this Agreement. To this end, all space vehicles, equipment, facilities, stations and installations on the moon shall be open to other States Parties. Such States Parties shall give reasonable advance notice of a projected visit, in order that appropriate consultations may be held and that maximum precautions may be taken to assure safety and to avoid interference with normal operations in the facility to be visited. In pursuance of this article, any State Party may act on its own behalf or with the full or partial assistance of any other State Party or through appropriate international procedures within the framework of the United Nations and in accordance with the Charter.

APPENDIX

2. A State Party which has reason to believe that another State Party is not fulfilling the obligations incumbent upon it pursuant to this Agreement or that another State Party is interfering with the rights which the former State has under this Agreement may request consultations with that State Party. A State Party receiving such a request shall enter into such consultations without delay. Any other State Party which requests to do so shall be entitled to take part in the consultations. Each State Party participating in such consultations shall seek a mutually acceptable resolution of any controversy and shall bear in mind the rights and interests of all States Parties. The Secretary-General of the United Nations shall be informed of the results of the consultations and shall transmit the information received to all States Parties concerned.
3. If the consultations do not lead to a mutually acceptable settlement which has due regard for the rights and interests of all States Parties, the parties concerned shall

Humans on Mars and beyond

take all measures to settle the dispute by other peaceful means of their choice appropriate to the circumstances and the nature of the dispute. If difficulties arise in connection with the opening of consultations or if consultations do not lead to a mutually acceptable settlement, any State Party may seek the assistance of the Secretary-General, without seeking the consent of any other State Party concerned, in order to resolve the controversy. A State Party which does not maintain diplomatic relations with another State Party concerned shall participate in such consultations, at its choice, either itself or through another State Party or the Secretary-General as intermediary.

Article 16

With the exception of articles 17 to 21, references in this Agreement to States shall be deemed to apply to any international intergovernmental organization which conducts space activities if the organization declares its acceptance of the rights and obligations provided for in this Agreement and if a majority of the

APPENDIX

States members of the organization are States Parties to this Agreement and to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies. States members of any such organization which are States Parties to this Agreement shall take all appropriate steps to ensure that the organization makes a declaration in accordance with the foregoing.

Article 17

Any State Party to this Agreement may propose amendments to the Agreement. Amendments shall enter into force for each State Party to the Agreement accepting the amendments upon their acceptance by a majority of the States Parties to the Agreement and thereafter for each remaining State Party to the Agreement on the date of acceptance by it.

Article 18

Ten years after the entry into force of this Agreement, the question of the review of the

Humans on Mars and beyond

Agreement shall be included in the provisional agenda of the General Assembly of the United Nations in order to consider, in the light of past application of the Agreement, whether it requires revision. However, at any time after the Agreement has been in force for five years, the Secretary-General of the United Nations, as depository, shall, at the request of one third of the States Parties to the Agreement and with the concurrence of the majority of the States Parties, convene a conference of the States Parties to review this Agreement. A review conference shall also consider the question of the implementation of the provisions of article 11, paragraph 5, on the basis of the principle referred to in paragraph 1 of that article and taking into account in particular any relevant technological developments.

Article 19

1. This Agreement shall be open for signature by all States at United Nations Headquarters in New York.

APPENDIX

2. This Agreement shall be subject to ratification by signatory States. Any State which does not sign this Agreement before its entry into force in accordance with paragraph 3 of this article may accede to it at any time. Instruments of ratification or accession shall be deposited with the Secretary-General of the United Nations.
3. This Agreement shall enter into force on the thirtieth day following the date of deposit of the fifth instrument of ratification.
4. For each State depositing its instrument of ratification or accession after the entry into force of this Agreement, it shall enter into force on the thirtieth day following the date of deposit of any such instrument.
5. The Secretary-General shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or accession to this Agreement, the date of its entry into force and other notices.

Article 20

Any State Party to this Agreement may give notice of its withdrawal from the Agreement one year after its entry into force by written notification to the Secretary-General of the United Nations. Such withdrawal shall take effect one year from the date of receipt of this notification.

Article 21

The original of this Agreement, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations, who shall send certified copies thereof to all signatory and acceding States.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto by their respective Governments, have signed this Agreement, opened for signature at New York on 18 December 1979.

Note

1. *Officials Records of the General Assembly, Thirty-fourth Session, Supplement No. 20 (A/34/20), annex II.*

Back

H. B. PAKSOY is happily retired. Earlier, he taught at several universities. This is his fourteenth book. He earned his D. Phil. from Oxford University, England (with a Grant from the Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom), M.A. at the University of Texas at Dallas (with a National Science Foundation Project Grant Assistantship), and B.S. at Trinity University (with Bostwick Scholarship)