On October 4, 1957, the Soviets launched the first satellite, Sputnik, into orbit, an event which signaled the dawn of space exploration and led one reporter to express relief that we had taken this first step towards escape from our “imprisonment to the earth.”¹ In the Prologue to the Human Condition, Hannah Arendt reflects on this and other scientific and technological developments, recognizing this same desire to escape a “prison” in the new biological and genetic sciences and the attempt to create life in a test tube, extend the human life span and even alter the size, shape and function of the human body. What these scientific and technological endeavors represent is not merely the desire to escape from the constraints of the human condition, they represent “a rebellion against human existence as it has been given” and the attempt to exchange this “free gift” for something that we have made ourselves, “cutting the last tie through which” human beings belong “among the children of nature.”²

This impulse is not new and, as Arendt suggests, it has many forms. Sometimes it is directed outward, as a refusal to be content with the world we find ourselves in, and we are motivated to change it, or to leave what is familiar to see if we can make a better life for ourselves on the other side of the hill, just beyond the horizon, or out among the stars.³ At other times it is turned inward, in the struggle to exceed the mental and physical constraints of our bodies, to know and understand more, to run faster and jump higher, and even cheat death

¹ HC: 1.
² HC: 3.
³ Hannah Arendt uses the term the world in a very specific way, to refer to the long-lasting, human construction that includes artifacts such as bridges, farms, buildings, artwork, poetry, shrines and constitutions along with less tangible products of organization, such as bureaucracies, states and religious traditions. Margaret Canovan suggests that a “large element of what [Arendt] understands by ‘world’ can be summed up under the heading of culture,” both material and nonmaterial. (Reinterpretation, 109) The world provides a durable, and stable context for human activities, providing a sense of collective identity and, in certain conditions, creating the possibility for judgment and collective action. The world is to the public what the household is to the private, an “artifice of man-made objects and institutions that provides human beings with a permanent home.” (Reinterpretation, 80)
itslf. In both cases this urge is deeply human, and as old as history and literature itself. But, Arendt claims, while the urge is not new, the question we face in the modern age is because, as Arendt suggests, science and technology mean that we no longer have to ask whether we can exchange what is given for something we have made, the question “is only whether we wish to use our new scientific and technical knowledge in this direction.”\(^4\) In Arendt’s words, the question is a matter of “judgment,” and cannot be decided by scientific means; “it is a political question of the first order and therefore can hardly be left to the decision of professional scientists.”\(^5\)

Arendt’s hesitation was not meant to impugn scientists or engineers, or science and technology, merely to highlight the special challenges that contemporary science and technology pose to the faculty of judgment, particularly as it pertains to the ability to “judge” the world they present to us. These challenges to our faculties of judgment, as well as the role that myth plays in addressing them, are at the heart of this paper. I will begin with an exploration of Arendt’s understanding of the problems posed by contemporary science and technology, and the difficulties they create for judgment. This will be followed by a brief description of the approach that Arendt developed to address these challenges, a method she variously described as pearl diving, collecting and storytelling. I will conclude with a brief exercise in this approach, presenting several “pearls” that can help us think about science and technology, focusing largely on space travel.

The Limits of Science and the Loss of Tradition

When Arendt claimed that the question of what we do, and don’t do, with our knowledge and abilities is a political question, she meant that these are questions best addressed by the political faculty of judgment, in which persons engage in a public exchange of views to come to an agreement. This faculty of judgment is a cornerstone of Arendt’s “politics of talk,” and it refers to our capacity to decide what is real in the world as well as the ability to evaluate what we take to be the case—is it right or wrong, beautiful or ugly—and to decide how we will act in response. A judgment is not true in the scientific sense—which is to say demonstrably true or false—although some judgments are more

\(^4\) HC: 3.
\(^5\) HC: 3
valid than others, with that validity being based on how many perspectives or opinions are taken into account. The exchange of opinion, and thus the validity of our judgments, is hampered by the nature of science and technology, not as a matter of exclusion or privilege, although this may exacerbate the problem, but because the truth of our modern scientific worldview can be proven mathematically and technologically, but they “no longer lend themselves to normal expressions of speech and thought.”\(^6\) We cannot talk about science and technology because we don’t have the language for it.

This problem is so fundamental that we can’t even rely on the expertise of scientists or engineers. This is in part because science is not a public space and its goals and methods are directed towards knowing, which is different from judgment. But the difficulties are deeper, because modern science resists translation into “common language,” so that scientists are as lost as the rest of us: “left behind” and unable to talk about what they are doing. This universe is not only “practically inaccessible, but not even thinkable,’ for ‘however we think it, it is wrong; not perhaps quite as meaningless as a ‘triangular circle,’ but much more so than a ‘winged lion.’” Science is confronted with new phenomena that “defies description in every conceivable way of human language” and “only expressed” mathematically.\(^7\) Max Planck argued that mathematical results needed to be translated into the language of the world and senses, but this may not be possible because, according to Arendt, science has lost contact with the world of the senses, and the “categories and ideas of human reason have their ultimate source in human sense experience, and all terms describing our mental abilities as well as a good deal of our conceptual language derive from the world of the senses and are used metaphorically.”\(^8\)

The result is that science itself is “a world in which speech has lost its power” so that if we followed “the advice, so frequently urged upon us, to adjust cultural attitudes to the present status of scientific achievement, we would in all earnest adopt a way of life in which speech is no longer meaningful.”\(^9\) This “speechlessness” would be a disaster for human life because whatever human beings “do or know or experience can make sense only to the extent that it can be spoken about.”\(^10\) Our sense of belonging in the world depends on our ability to talk about it with others, so that we can humanize the world and situate ourselves in it. It is speech that makes the world fit for human habitation,

\(^6\) HC: 4.
\(^7\) CSSM: 269, quoting Erwin Schrödinger and Niels Bohr.
\(^8\) CSSM: 271.
\(^9\) HC: 3-4.
\(^10\) HC: 4.
creating a world that we are at home in and not a place where we merely reside. Human beings “in so far as they live and move and act in this world, can experience meaningfulness only because they can talk with and make sense to each other and to themselves.” Our inability to talk about what we know and what we can do threatens our sense of “at-homeness” as well as our sense of meaning and our ability to judge right from wrong.

The inability to talk about what we know and what we do and to makes sense of our experience in the context of the existing world is the essence of what Arendt identified as the crisis of modernity. It is caused by a break in the tradition—the “thread that ties us to the past, providing a sense of permanence and stability”—that is so profound that the tradition no longer illuminates our experience. This break in the tradition explains why it is “so obviously wanting in productive replies, when challenged by the ‘moral’ and philosophical questions of our time.” It would be a mistake to associate this loss with the challenges and rebellions of the 19th Century, because, while these rebellions were characterized with the audacious tendency to think without authority, they nonetheless occurred within the context of traditional concepts. What destroyed tradition was the “chaos of mass perplexities on the political scene and of mass-views on the spiritual sense,” caused by the “unprecedented events” of the 20th Century. Arendt associates these unprecedented events mainly with totalitarian movements, the existence of death camps within Nazi Germany and the Atom Bomb, but she included the development of modern scientific knowledge and technological ability because in science and technology, as much as in totalitarianism and the camps, we “are confronted with something which has destroyed our categories of thought and standards of judgment.” The result is “confusion and helplessness.”

The rupture cause by science and technology is deeper than any single event or discovery, and she credits Søren Kierkegaard with being one of the first to recognize “that the incompatibility of modern science with traditional beliefs does not lie in any specific scientific findings.” Individual scientific finding can be integrated by traditional religion since none of them undermine faith. The incompatibility between science and religion—or between science and any

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11 HC: 4.
12 WA: 95.
13 UP: 385.
14 BPF: 26.
15 UP: 382.
16 BPF: 18.
17 BPF: 31
tradition—lies “in the conflict between a spirit of doubt and distrust which ultimately can trust only what it has made itself, and the traditional unquestioning confidence in what has been given and appears in its true being to man’s reason and senses.”\textsuperscript{18} Rather than trust in our experience of what has revealed itself to us—whether our own experience or those who have come before us—science trusts only the experiences it has “made” through controlled experiments. This logic of “making” permeates the world of science, so that “theory” no longer refers to reasonably connected truths which are “given to reason and the senses” but becomes \textit{scientific} theory “which is a working hypothesis, changing in accordance with the results it produces depending for its validity not on what it reveals, but on whether it works.”\textsuperscript{19} For this reason, “the rise of modern science, whose spirit is expressed in the Cartesian philosophy of doubt and mistrust”\textsuperscript{20} undermines all tradition, including religion, because the conceptual framework of tradition relies on trust that what “appears to me”—and to others before me—was, is, and will remain true.

The crisis of the modern world, our ability to make sound judgments about what we know and do, is not a moral crisis, it is “an unprecedented ‘problem of understanding’” that exists because the “traditional categories and standards that ordinarily serve as guideposts to critical thought” no longer work. They have been weakened by a spirit of distrust that permeated public life, and by events so unprecedented that they could not be addressed by traditional categories of thought. It has become impossible to transpose “past insights into contemporary wisdom,” because it is the tradition that transforms truth into wisdom, and without the tradition, even if we know the truth, we cannot be wise.

Arendt worried that this meant that “we, who are earth-bound creatures and have begun to act as though we were dwellers of the universe, will forever be unable to understand, that is, to think and speak about things which we are nevertheless able to do.”\textsuperscript{21} If this is the case, and if it is permanent, then “knowledge . . . and thought have parted company” and we will “become the helpless slaves, not so much of our machines as of our know-how, thoughtless creatures at the mercy of every gadget which is technically possible, no matter how murderous it is.”\textsuperscript{22} What we need, according to Arendt, is “a narrative that

\begin{footnotes}
\item[18] TMA, 31.
\item[19] TMA: 39.
\item[20] TMA: 39.
\item[21] HC: 3.
\item[22] HC: 3.
\end{footnotes}
would once again reorient the mind in its aimless wanderings for only such a reorientation could realign the past as to build the future.”

**Storytelling**

Arendt’s assertion that it was necessary to think within the breach of the tradition had its basis in her experience of totalitarianism, specifically as a Jew living in Nazi Germany. She claimed that the emergence of this new form of government, and the experience of the concentration camps were so unprecedented that traditional moral and conceptual categories were inadequate to the task of describing them. Despite this failure, these categories are so “deeply ingrained in our mind” that we cling to them in part because we think that these categories are justified not by their ability to describe actual events, but by their “intellectual consistency.” Unfortunately, using the tradition in this way not only leaves us unable to describe our experiences, it tends to normalize all experiences, fitting them into a preconceived framework, a process that by its very nature proclaims that there is nothing new or extraordinary about these experiences. But, the actual experience of the camps and of these totalitarian forms of government was new. Further, falling back on these conceptual crutches not only made it impossible to see these experiences for what they were, it stopped us from thinking altogether, because thought itself is replaced by these categories. The result is that we uncritically accept received categories and force events and experiences into them, redefining them, or simply ignore them altogether.

Totalitarianism presented numerous challenges for Arendt. She wanted to explore it, without making sense of it; and to speak of it “in a way that does not compel assent but rather stirs people to think about what they are doing.” In the process, she wanted to reclaim the past without being enslaved by tradition. What Arendt wanted was a way to think “that needs no pillars and props, no standards and traditions” that would enable us “to move freely without crutches over unfamiliar terrain.” What she wanted was to begin with experience—“thought itself arises out of incidents of living experience and must remain

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23 Benhabib: 86.
25 Disch: 114
26 MDT:10.
bound to them as the only guideposts by which to take our bearings—27—and to think from there, developing a “critical understanding from experience”—28

Arendt described the method she eventually developed as “storytelling,” claiming that “when the salient feature of a dilemma is that it cannot be understood in terms of ‘pre-articulated’ rules, it is best represented by telling a story.”29 Storytelling was a way of thinking that arose from experience, and it necessarily involved discovering and (re)creating stories, because while human experience can be “crystallized” into many different forms—including art, poetry and abstract concepts—but stories, including literature and myth, are the privileged form for describing human experience because human beings are first and foremost actors and action can only be preserved through a story: “the reason why each human life tells its story and why history ultimately becomes the storybook of mankind . . . is that both are the outcome of action.”30 Because human action and thus human identity are narratively structured, “the continued retelling of the past, its continued reintegration into the story of the present, its continuous reevaluation, reassessment and reconfiguration, are ontological conditions of the kinds of beings we are.”31 Narratives are the “repository of human experiences in which we can find permanent human possibilities that are wider than those known and expected within our own culture.”32 Stories are not disposable or replaceable; they are the means by which human experience is preserved for future generations.

This method of storytelling begins with one’s own experience, the experience of the thinker, and it must, of course, always returns to this experience. But it can never rely on a single viewpoint, because that would lead to the type of ideological non-thinking about which Arendt was so concerned. The storyteller must therefore expand her horizon so that she can include other stories, other experiences. Lisa Disch describes this as developing a kind of “visiting imagination” where we put ourselves in the place of another and attempt to imagine what the world looks and feels like from their perspective. Arendt describes just this kind of an approach in a rare moment when she elaborated on her method, claiming that her starting point for her controversial “Reflection on Little Rock” was the photograph of Elizabeth Eckford being

27 BPF: 14.
29 Disch: 112.
30 LWA: 180
32 Canovan: 11.
jeered by a crowd and the question “What would I do if I were a Negro mother?”

Storytelling is not restricted to the present, any more than it is restricted to the experience of the storyteller. Storytelling includes the ability to delve into the past to find the bits of experience that have been left behind. These bits of experiences are passed on from generation to generation in a variety of “thought things,” each of which has a kind of permanence, and they continue to exist even when the thread of tradition is irreparably broken. As a result, even when tradition is lost, the past is not destroyed, “What has been lost is the continuity of the past, as it seemed to be handed down from generation to generation, developing in the process its own consistency . . . . What you then are left with is still the past, but a fragmented past, which has lost its certainty of evaluation.” The task of the storyteller is to retrieve these bits of the past, to delve into the experiences they contain, and to retell the story of those experiences in such a way that they help us make sense of the present; that is, to tell the story of the past in such a way that the story of the present makes sense.

Perhaps her best description of the task of the storyteller in relationship to this fragmented past is in an essay on Walter Benjamin, some of which appears in revised form in the first part of Life of the Mind. She describes Benjamin as a flaneur—“aimlessly strolling” through a crowd and noticing the small details that are lost in hurried purposeful activity—and a collector, “strolling through the treasures of the past,” gathering its “scraps and fragments.” She then compares this act of collecting to that of a pearl diver, quoting from Shakespeare’s The Tempest:

Full fathom five thy father lies,
Of his bones are coral made,
Those pearls that were his eyes.
Nothing of him that doth fade
But doth suffer a sea change
Into something rich and strange.
Act I, Scene 2

The fragmented past, strewn across the floor of the ocean, may look “like a field of ruin,” hardly valuable, but there are treasures to be found, pearls of crystallized experience contained in these thought things. The task of the pearl diver is to dive deep into the ocean to “pry loose the rich and the strange, the pearls and the coral in the depths and to carry them to the surface.” This must be

33 Reply: 244.
34 LM: 212.
35 Benjamin: 198, 201.
done with care, so as not to destroy what is valuable, and one must “plumb the depths of language and thought” by drilling, not excavating, “so as not to ruin everything with explanations that seek to provide counsel or systematic connection.”

The task is “to obtain the essential in the form of quotations as one obtains water by drilling for it from a source concerned in the depths of the earth” thus uncovering the “spiritual essences from a past that have suffered the Shakespearean “sea-change” from living eyes to pearls, from living bones to choral.”

Arendt was careful to say that the goal is not to somehow resurrect the tradition. The collector does not put the past in order, because unlike the tradition, the collector is unsystematic, even chaotic “tearing fragments out of their context and arranging them afresh in such a way that they illustrated one another.” In this way, the collector is first a destroyer, tearing apart what exists so that it can be rearranged into something new. Because the tradition is already destroyed, so that all that remains is the act of piecing the bits back together in new ways, not as an act of resuscitation, “but rather in the belief that in these survive in crystalline form something that can illumine our experience in the present” as well as challenge all of our preconceived notions, forcing us to see the world in a different way. The breach in tradition certainly presents serious risks, but there are also opportunities, because “implicit in it is the great chance to look upon the past with eyes unrestricted by any tradition, with a directness which has disappeared from Occidental reading and hearing since Roman Civilization submitted to the authority of Greek thought.” What Benjamin had “discovered that the transmissibility of the past had been replaced by its citability and that in place of its authority there had arisen a strange power to settle down, piecemeal, in the present and to deprive it of “peace of mind,” the mindless peace of complacency.”

Arendt viewed storytelling as a form of understanding that was able to address the unexpected, because it neither relies on a pre-articulated framework, nor does it close off alternatives. On the contrary, stories engage listeners (or readers) in a different kind of critical thinking, because stories both judge and invite judgment. Stories challenge theory by reminding us that all theory begins in experience, and by expecting that theory will continue to be accountable to experience. Stories challenge our preconceived ideas, and promote genuine

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37 Benjamin: 203.
38 Benjamin: 202.
40 MDT: 193
thinking, because a well-crafted story can change the way that we see the world and can reveal assumptions buried in seemingly neutral arguments. For these reasons, storytelling invites critical engagement in a way that a disconnected, abstract voice cannot, and there were numerous occasions when Arendt countered dogmatic confidence in science by relying on stories that provided a skeptical alternative. Ultimately, storytelling provided a more objective understanding than theory—a view that flies in the face of Western bias towards conceptual thought as an antidote to biased, subjective stories. But, storytelling is objective because, unlike conceptual thought, it is capable of approaching the world from multiple perspectives, and always allows room for more.

For several years now, I have been relying on the work of Hannah Arendt for insights into how to rethink the relationship between religion and science in a way that opens the door for a more substantive role for religious truth claims, an understanding of the relationship that is more than natural theology or ethics in which science provides discoveries, and theologians respond accordingly. But I think that Arendt provides a different way to “do” theology, one that critically engages culture. In this approach, one of the tasks of theology, and of religion, is to critically engage science and technology by diving into the past—our stories, myths, art, poetry, concepts—to judge them in light of the insights contained within them. In the next section, I will engage in a little methodological exploration of what this kind of an approach might look like.

Pearl Diving

The Epic of Gilgamesh is certainly a pearl of great price. The oldest literature in the world, this series of tales touches upon numerous themes, including the dangers of the quest for wisdom, the distinction between triumph and recklessness, two important insights when trying to judge science and technology. But perhaps its dominant theme is the desire that Arendt identifies at the heart of the modern psyche, and that is the quest to escape human existence as it is given to us and to exchange it for something that we have made ourselves, something that we alone are responsible for, and something that we can control.

41 Disch: 106.
42 Disch: 115.
According to the account, Gligamesh was king to the great city, Uruk. He was strong, healthy, accomplished, with almost unlimited power and privilege, and the loyal companionship of a beloved friend, Enkidu. Despite all this, he was not satisfied, and one day he announces that he is determined to set off on a great journey to fell the Cedar Trees and kill Humbaba, the guardian of the forest. The text is not clear what drives him—Humbaba is not a threat and Gilgamesh has all he could ever want—although there is a suggestion that what he seeks is a challenge and the fame that comes with great achievement. He wants a kind of immortality: “Only gods live forever. Our days are few in number, and whatever we achieve is a puff of wind. . . . I will cut down the tree, I will kill Humbaba, I will make a lasting name for myself, I will stamp my fame on men’s minds forever.” He succeeds in his quest, and does indeed make a lasting name for himself, but he pays a high price in the death of his companion Enkidu. The death of his beloved friend again reminds Gilgamesh of his mortality, and he decides that it is not enough that his name live forever, he wants to live forever. He again wants what the gods have not given him, so he sets out on another journey, this time to learn the secret of immortality.

Both of Gilgamesh’s journeys—the one for adventure and everlasting glory, the other for knowledge and everlasting life—are attempts to escape the life that he has been given for one that he has chosen and which he alone is responsible for. The story suggests that pushing the boundaries—through physical and mental challenge, through adventure, exploration and greater knowledge—are key to this exchange or transformation because these challenges push us beyond our limits into new territory. Thus, Gilgamesh is celebrated because he “journeyed beyond the distant,” “beyond exhaustion” and because “He saw the great Mystery, he knew the Hidden.”

The theme that human beings are transformed by a difficult journey—both by facing those difficulties and by the knowledge gained on the journey—is present in the language of science and technology. In terms of space travel, it was present from its inception. In March 1958, the Report of James Killian’s Science Advisory Committee specified “four factors which give importance, urgency and inevitability” to the exploration of space, the first of which was “the compelling urge of man to explore and discover, the thrust of curiosity that leads men to go where no one has gone before.” The fourth reason was that exploration provides “new opportunities for scientific observation and experiment which will add to our knowledge and understanding of the earth, the solar system, and the universe.” (The second and third factors are military defense and national prestige respectively.) In 1962, President John F. Kennedy

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proclaimed that we choose to go to the moon “not because [it] is easy, but because [it] is hard.” The idea that the challenge itself is justification for the journey has remained a constant theme in the language of space exploration. It expresses the belief that it is through facing and overcoming challenges that human beings achieve greatness and “go beyond” themselves. It is the journey—the challenge that it poses and the knowledge it provides—that provides the opportunity for human beings to transform their present state of existence.

This language is also evident in the “Founding Declaration of the Mars Society,” the charter document of the Mars Society, which was founded in 1998. This document was written at a time when the space program in the United States seemed to have lost its way; its nine short paragraphs are a ringing declaration of the reasons for human (and not just robot) exploration of Mars. “We must go for the challenge,” they say, because “Civilizations, like people, thrive on challenge and decay without it.” Young people especially need the challenge—the “spirit of youth demands adventure”—and the challenge of Mars will enable them to “develop their minds to participate in the pioneering of a new world.” The Mars Society proclaims “that the exploration and settlement of Mars is one of the greatest human endeavors possible in our time,” offering a cooperative challenge (as opposed to violence) that will allow humanity to “go beyond” the boundaries of our world. “We must go for the future.”

Robert Zubrin, one of the founders of the Mars Society, suggests another dimension to this exchange, invoking the American Frontier Myth as a motivation for colonizing Mars: “Are we still a nation of pioneers?” he asks, “Do we choose to make the efforts required to continue as the vanguard of human progress, a people of the future?” (xiii) Later he declares, “The question of taking on Mars as an interplanetary goal is not simply one of aerospace accomplishment, but one of reaffirming the pioneering character of our society.” (xv) President Bush echoed this theme in 2004, announcing a “new vision” for the space program. Invoking the “spirit of discovery” of explorers Lewis and Clark and declaring: “America has ventured forth into space for the same reasons. We have undertaken space travel because the desire to explore and understand is part of our character.” Invoking this myth is, again, not new. In May of 1958 Speaker of the House John McCormack testified that: “we are beginning an era of discovery literally as far-reaching as the discovery of our own continent,” while Werner von Braun agreed that space exploration “will be comparable to the discovery of America.”

The invocation of the frontier myth suggests yet another exchange—an old life for a new one. It is an opportunity to recreate ourselves, to start over and

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44 In Smith, 1983: 196.
avoid the mistakes of the past. The person who best embodies this desire is John Winthrop, whose famous sermon on board the Arrabella in 1630 was one of the earliest articulations of what was to become a defining American myth. God, he said, had made a covenant with the settlers. A great deal was expected of them, but if they kept the covenant:

The Lord will be our God and delight to dwell among us, as his owne people and will command a blessing vpon vs in all our wayes, soe that wee shall see much more of his wisdome power goodness and truthe then formerly we have been acquainted with, wee shall finde that the God of Israel is among vs, when tenn of vs shall be able to resist a thousand of our enemies, when hee shall make vs a prayse and glory, that men shall say of succeeding plantations: the lord make it like that of New England: for wee must Consider that wee shall be as a Citty vpon a Hill, the eies of all people are vpon vs (198-99).

Here Winthrop articulates the belief that Christendom had gone astray, violating their covenant with God. But the New World offered a chance to get it right; a chance at redemption, to literally return or be restored to a better state. This redemption is more significant because, through the redemption of a few, the world has a chance to get it right as well, because this “New Jerusalem” would not only be a shining example for others to follow, once they had established their utopian society, these settlers could return to England and help rebuild God’s kingdom there.

In a similar vein, the Mars Society proclaims: “The settling of the Martian New World is an opportunity for a noble experiment in which humanity has another chance to shed old baggage and begin the world anew; carrying forward as much of the best of our heritage as possible and leaving the worst behind.” They go on: “It is a New World, filled with history waiting to be made by a new and youthful branch of human civilization that is waiting to be born. We must go to Mars to make that potential a reality. We must go, not for us, but for a people who are yet to be. We must do it for the Martians.” Like the Americas before it, the settlement of Mars is seen as a second creation, a place to start over. Zubrin prophesied “Mars may someday provide a home for a dynamic new branch of human civilization, a new frontier, whose settlement and growth will provide an engine of progress for all humanity for generations to come.”

These few lines encapsulate a salvation history: the journey to Mars is a chance to turn away from sin (“shed old baggage;” “leave the worst behind”), so that through our own self-sacrifice (“we must go, not for us”), humanity will be born again. Mars is the New Eden, it is a promise of redemption through emigration. This will not only be redemption for the happy few who get to escape. Aside

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from the practical benefits that will flow back to earth, the example of Mars—a Shining Red City on the Olympus Mons?—will “inspire” the youth and “serve as an example of how . . . joint action could work on earth.”

Human history is littered with stories—from Gilgamesh, to Homer, to J.R.R. Tolkien—that give testament to the experience that there is something noble and profound in struggling against impossible odds. In this, the desire to explore the heavens is not new. And if the experience that it is possible to start from scratch, to begin a new life unburdened by past mistakes is somehow more recent, more particularly American, it too resonates with our experience. If we begin to look askance at calls to surpass our own limitations and literally reach for the stars, or doubt the value of redemption, surely we risk rejecting an experience that has historical significance, and which can illuminate the present. My concern is not with the desire to strive for something more than we already have or can do, nor is it the idea that we would exchange what we have been given—the “free gift” in Arendt’s words—for something that we have made ourselves. The issue is that the experience reflected in the rhetoric of space travel often lacks a sense of the tragic, a recognition of any distinction, or even tension, between a transcendent or ultimate perspective and the human or finite one. And here the Christian concept of the Imago Dei—another pearl—is helpful, because when looking at the language of exchange, it is never clear what the imago is that we are giving up, or what we are exchanging it for.

The Imago Dei

Traditionally, the concept of the Imago Dei asserted that human beings are created in the image of God. This image was distorted (or lost) in the Fall, but remains a point of contact with the divine and, as such, expresses what is best in human beings, even while asserting its limits. The Imago Dei establishes the transcendent goal towards which we should strive, even while it reminds us that all attempts are inadequate. It sets the groundwork for redemption first by reminding us that we have somehow gone wrong, that we need redeeming, and then by describing what that redemption looks like. Properly understood, the Imago has an inherent tension between the infinite, the image we are created in, which remains unattainable because human beings are finite. This tension between the infinite and the finite gives the imago Dei a tragic dimension, because the tragic highlights the fundamental conflict between the ultimate perspective—in which all things form a coherent whole and there is no discord—and the finite one, in which human lives, thought and action are
conflicted, contingent and partial. The tragic reminds us that our best intentions—and our best wisdom—can lead to horrible outcomes.

The tragic tension between the ultimate and the finite is clearly present in both Gilgamesh and Winthrop. Gilgamesh suffers because of his affronts, and his attempts to learn the secrets of eternal life are all for naught. Winthrop also expresses this tension, and the power of his vision lies in its ambiguity. On the one hand, it is a call to be a community united in purpose, living not for our own selfish interests, but for the interests of the whole. The idea that we should strive to live in accordance to a vision that expects us to forego our narrow, selfish desires and that we should be accountable to one another and “follow the counsel of Micah, to do justly, to love mercy, and to walk humbly with our God” is certainly ennobling. Winthrop’s vision is compelling, including a commitment to education, civic duty, mutual support and the expectation that however difficult the task, we are called to live a life beyond ourselves, and to embody a high standard. This vision would lead, through twists and turns, to the United States constitution, the abolitionist movement, women’s suffrage, and the Civil Rights Movement.

Unfortunately, as Robert Bellah reminded us, there is a dark side to Winthrop’s vision, and it also foreshadowed a history of conquest and imperialism. This dark side of Winthrop comes when we ignore the tension in his vision, because Winthrop acknowledges not only that our task is difficult, and that we are called to greatness, but that we have failed in the past and we will fail in the future if we refuse to acknowledge our mistakes and to be accountable to one another. Winthrop’s vision includes a call to repentance, and an unblinking look at our failures. This dark side of Winthrop’s vision is directly related to our historical amnesia, and the inability to admit the mistakes of the past.

The trick, as I tell my students, is to allow yourself to be moved by Gilgamesh’s passion and Winthrop’s vision while keeping your eyes firmly fixed on the dark consequences of that passion and that vision. New beginnings and redemption are simply not possible in any meaningful way without a tragic vision which contrasts human failure that is rooted in finitude, with the ultimate possibility that we might one day get it right; and the eternal hope and real possibility that human beings can start over again. Attentiveness to and awareness of this tragic dimension of existence gives us a depth of vision and can even bring meaning to our suffering. Ignoring the tragic leads to a shallow vision and, well, tragedy.

Unfortunately, the language of science and technology often lose sight of the difference between the ultimate and finite perspectives. The resulting shallow vision is evidenced in two ways. The first is that the finite is treated as
though it were the ultimate, which is why the vision of human greatness as technological know-how and scientific prowess is so shallow. Second, redemption is approached only from the perspective of the ultimate, as a shining future which we are about to achieve, so there is no acknowledgment of the old, fallen state. Theologically, we might call this cheap grace or, more in the Lutheran tradition, a Theology of Glory—more pearls among the ruins!—devoid of the cross. The practical consequence is a shallow redemption, strangely lacking in any historical memory or any sense of human responsibility or power. Both of these can have tragic consequences even, as we shall see, demonic ones.

Shallow Greatness

The first consequence of the loss of distinction between the ultimate and finite perspectives is that the authors treat their finite vision as though it were ultimate. This is not unique, of course. It has frequently been observed that the Imago Dei is more often than not a human projection that elevates and justifies a very finite conception of human personhood, and throughout history, human beings have aligned themselves with grand forces which were no more than the projection of themselves. The language of space exploration is no different; but rather than projecting ourselves on to God, we project on to other forces and the elements of the divine are portrayed as attributes of human science and technology. What is key is that these external standards both direct and control human action; it justifies them and absolves us of responsibility. For this reason, these projections are not innocent. They are instead fraught with danger because treating these finite visions as total not only renders us incapable of seeing anything other than our projections, it transforms our ideas into something greater than we are, something eternal and irresistible, like “human nature” or the “demands of history.” Ultimately, this sacrifices human freedom and abdicates our responsibility to forces that we cannot control.

When this happens, we lose all sense of the limitations of human thought and action, and we simultaneously feel unaccountable. Suddenly, “anything is possible and anything is permissible” because we perceive ourselves to be connected to, responsible for, and limited by nothing and no one other than this self-justifying, uncontrollable force. According to Arendt, this is what happened in Western imperialism, when the process of imperialism itself—the demands of endless expansion—became more important than any particular goal and the process of endless expansion was self-justifying and all consuming. It is also the core of the myth of capitalism and, now, the myth of science. This is what happened to Gilgamesh, in seeking to create something that he alone was responsible for, he say himself as responsible to no one and no thing.
Arendt associates this experience with the adventurer, who “loves the game for its own sake.”\textsuperscript{46} While an explorer embarks on a journey to discover something, even if that something is only within herself, an adventurer is ultimately motivated simply by the experience of pushing limits. An adventurer may push the frontiers of knowledge, or seek to climb the next hill, but does so not to achieve knowledge or see what is on the other side; the adventurer journeys only to see if it is possible. Real life adventurers, like T.E. Lawrence, believed they “had entered . . . the stream of historical necessity and become a functionary or agent of the secret forces which rule the world.”\textsuperscript{47} Lacking “some limited achievement” their only satisfaction come “from being embraced and driven by some big movement.”\textsuperscript{48} It did not matter what that movement was.

While any single adventurer may be animated by a goal, adventurers embody no particular goal, only endless processes and purposelessness. Because adventurers are essentially empty, there is nothing to prevent exploration from becoming exploitation and utopias from becoming dystopias.

No matter what individual qualities or defects a man may have, once he has entered the maelstrom of an unending process of expansion, he will, as it were, cease to be what he was and obey the laws of the process, identify himself with anonymous forces that he is supposed to serve in order to keep the whole process in motion; he will think of himself as a mere function, and eventually consider such functionality, such an incarnation of the dynamic trend, his highest possible achievement. Then, as [Cecil] Rhodes was insane enough to say, he could indeed “do nothing wrong,” what he did became right. It was his duty to do what he wanted. He felt himself a god—nothing less.\textsuperscript{49}

When we think of ourselves like gods, we behave like animals. Joseph Conrad’s \textit{Heart of Darkness} suggests that when there is “no there, there” we will end up only with ourselves, projecting our own fears and foibles on an entire continent. Thus Kurtz, who claimed to be searching for greatness, once he was freed from the limitations of the past and the present, became “hollow to the core,” “reckless without hardihood, greedy without audacity and cruel without courage.”\textsuperscript{50} When we think we can “do nothing wrong,” whatever we do becomes right. Rhodes thought he was “limited only by the size of the earth.” Today we may have lost even this limitation.

\textsuperscript{46} OT: 217.
\textsuperscript{47} OT: 220.
\textsuperscript{48} OT: 220.
\textsuperscript{49} OT: 215.
\textsuperscript{50} OT: 189.
This is the tragic flaw of hubris. Seeking greatness in itself is not the problem, nor should we forego challenging the boundaries of existence. The tragic does speak to what is great in us, because the drive "to realize full human potential, to move into territories staked out by the highest human dreams and imaginations, means to move beyond limits set on human beings." The tragic hero storming the gates of heaven—Prometheus in his pursuit of fire, Gilgamesh seeking immortality—is an inspiring call to greatness. But, the quest for transcendence is always ambiguous. From the finite perspective, it is noble; from the ultimate perspective it is presumptuous, dangerous and must usually be punished. Human greatness does emerge when we refuse to accept the way things are and insist that they can be better. What the ultimate perspective of a tragic vision reminds us—and what is often missing when we speak of scientific knowledge and technological ability—is that these limits "cannot be crossed without deep suffering and even death." To the extent that we lack the ultimate perspective, there is no tragic dimension, only triumphalism. This is not a journey to greatness; it is (as Arendt argues) the road to hell.

Redemption without Repentance

The second consequence of this lack of distinction, and the results are more subtle than the first, is that the language associated with space exploration—the “conquest of space”—fail to see human beings as we are and as we have been. They fail to own up to who we really are and what we have really done. When nothing confronts us with our own finitude and fallibility, we are free to ignore it. Thus, there is a strange historical amnesia in our technological pride, a forgetfulness that permeates our rhetoric. President Bush (2004) declared “Mankind is drawn to the heavens for the same reason we were once drawn into unknown lands and across the open sea. We choose to explore space because doing so improves our lives, and lifts our national spirit,” and in so doing he simply ignored all those for whom European exploration meant the destruction of their lives and spirit—the people who already lived in the Americas. Nor does he recall the 400 years of colonial war that followed upon Columbus, as Europeans fought amongst themselves for the spoils of conquest.

The Mars Society has also forgotten the history of imperialism. Mars, they declare, “is a New World, filled with history waiting to be made by a new and youthful branch of human civilization that is waiting to be born.” Zubin goes further than most in invoking the Frontier Myth:

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51 Humphreys: 3.
52 Humphreys: 3.
Without a frontier from which to breathe new life, the spirit that gave rise to the progressive humanistic culture that America has represented for the past two centuries is fading. The issue is not just one of national loss—human progress needs a vanguard, and no replacement is in sight. The creation of a new frontier thus presents itself as America’s and humanity’s greatest social goal.53

In all these expressions a sanitized, bloodless, and victimless Frontier Myth is put in place of history. Thus a key element of the tragic is missing, the “shock of recognition,” the moment of truth when the hero comes face to face with the reality of his own culpability. Aristotle speaks of disclosure being the climactic point of a tragedy, especially self-disclosure, as when Oedipus not only recognizes everyone for who they are, but also recognizes himself for what he is and what he has done.

This is also the climax of Joseph Conrad’s Heart of Darkness. Kurts has gone to Africa to spread civilization. But, suddenly finding himself with nothing to restrain him, he looks inside himself and what he sees destroys him. Below all the layers of civilization he was barbaric, as barbaric as the Africans he thought he had come to civilize. He had no choice but to give free reign to this barbarism, and to act out abominations, rituals in the dead of night, and ceremonies of destructive sexuality, cruelty and torture. What he discovered, an aspect of the tragic vision, is that the power of the destructive forces is within us: “We have met the enemy, and it is us.” His last words—“The horror, the horror”—reflect his inner self.

A new beginning is not possible unless we can be transformed. But, we cannot be transformed until we confront who we are and what we have done. The ability to believe in the possibility of a new beginning even while staring unblinkingly at our present situation is at the heart of redemption, a Kierkegaardian leap of faith. The inability to do so means that we have to ignore the past and run from it. Endless movement is the shallow alternative to real redemption. Arendt suggests that the belief in endless expansion—the driving force behind imperialism—made it possible to avoid our sins.54 But, as any drunk can tell you, the first step to redemption is admitting that you have a problem and then taking a fearless inventory of your past. Rather than experiencing the shock of recognition that confronts us with our past, then experiencing the repentance that leads to the transformation that allows us to do something truly different, we simply move on and swear that it won’t happen again (whatever it was, and whoever was responsible, that is all in the past.

54 OT 156.
Really.) That those who ignore history are doomed to repeat it is certainly true, and Stanley Hauerwas goes so far as to suggest that, no people who truly acknowledged and repented of the sins of their past would have the hubris to embark on an imperial enterprise. Trying to create a New World without the ability to look at the old one is like a dry drunk, toughing it out in a distillery because he neglected to take the first step.

The tragic hero is never without fault, and the suffering that results from our quest is not completely undeserved. We bear the responsibility for our choices and actions. That human beings are active participants in the tragedy of existence implies both freedom—meaning that we can act in the face of finitude—and responsibility—that these acts have consequences. The idea that human beings do not have to be limited by the world as it is, nor defined by the sins of the past—whether our own, our families or our cultures—speaks to the fundamental freedom of human beings to act in the world in new and unexpected ways. To be human is to be able to act, not just follow along.

This inability to admit to mistakes in the past is curious, and it gives rise to the question as to why it is so hard. The most immediate reason appears to be that those who express such an unmitigated confidence in space exploration find it difficult to see what human beings have done because they are blinded by their confidence in what we can do. The inability to distinguish a truly transcendent vision makes it impossible to see the limits of reality. It is as though we can’t see how shabby our coat is unless we see the grand new one in the window of Nieman Marcus.

There is something even deeper, however, and there is a sense that even if they could see it, they would be forced to turn away and pretend that it was not there. For without something beyond our own desires, what do we do with our mistakes? Our sins, if you will? When you wake up one morning and discover you are knee deep in the blood of creation, a tragic vision can help you cope with the realization because it suggests that this realization is the path to real transformation and redemption. But, to the extent that we lack a sense of the tragic, when we look in this mirror, we are forced to turn away.

In a pivotal scene in the movie Schindler’s List, Schindler confronts the camp commander Amon Goetz with an image of true transcendence. Real power is not doing what the law—natural, human, historical or otherwise—says we must do, it lies in the ability to release someone from the consequences of their actions. We see Goetz struggling with this concept, and three times he “pardons” Jewish “transgressors.” After his final pardon, Goetz looks in the mirror, touches his reflection on the glass and attempts to pardon himself. But he cannot—perhaps because he cannot bear to see what he has truly done, or
perhaps because he knows that the magnitude of his sins is beyond his power to forgive. Without that pardon, Goetz has no choice but to blindly revert to his past. He takes his gun and kills the boy he has just pardoned.

The language of space exploration—and technology in general—loses the tragic tension, because there is ultimately no ultimate, just the journey of human accomplishments and actions. Human greatness is understood in technological terms and redemption is a scientific and technocratic venture, granting a divine and salvific status to human science and technology. Humanity is self-transcendent and fully capable of stepping into the role of the Creator, again the Mars Society: “Human beings are more than merely another kind of animal—we are life’s messenger. Alone of the creatures of the Earth, we have the ability to continue the work of creation by bringing life to Mars, and Mars to life.” There is a creation but no creator! The language of science and technology not only provides a paradoxical Imago Dei, because there is no God; it envisions a paradoxical utopia, because there is no vision. And there is no vision because its goals are as untethered as the men in Conrad’s story. It is as hollow as the “hollow men.” This narrative is devoid of history, of community or ambiguity. It lacks the most fundamental element of the Imago Die: the recognition that we are fallen and must therefore contend with the limitations of finitude.

It is, of course, possible to set out on a journey and be transformed; it is even possible to start a new life, to experience a redemption. It is not possible without an adequate understanding of our limits and an unblinking resolve to confront our past, that is, a sense of repentance. Without the acknowledgement of transcendence, and the acceptance of our limitations in the face of it, our vision will be as hollow as the “hollow men” of Conrad’s narrative. Lacking any real vision in this hall of mirrors, we cannot hope to create a new world because we refuse to acknowledge the old one. Our New Eden, whether on Mars or in the laboratory, may well reveal a Martian Heart of Darkness.
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