

SPACE AND RELIGION: AN INTERWEAVING OF INFLUENCES

by Jacques Arnould

Abstract. Since the earliest ages of humanity, the contemplation of the starry sky has invited the human being to ask: “Who am I? Where is my origin? What is my destiny?” The revolution introduced by modern astronomy has affected how humankind understands itself, and the development of aeronautical and then astronomical techniques introduced a new experiment for humanity—that of being citizen of the sky. By carrying out the dream of Icarus, has humanity realized the attempt of Prometheus? Would we take the place of the gods or God? Do religions have to fear the conquest of space? Despite modern science and the knowledge we have accumulated, space still holds its share of mystery, nurtured by its vast dimensions and startling beauty. Space continues to raise the issue of meaning.

Keywords: anthropocentrism; astronautics and religion; popes; space conquest

IN EXCELSIS!

“Only apples will fall into a cloth stretched under an apple tree,” wrote Antoine de Saint-Exupéry in *Wind, Sand and Stars*, “and only stardust will fall into a cloth stretched beneath the stars. . . . The most marvellous thing is that, there, standing on the planet’s arched back, between this magnetic cloth and the stars, was a man’s conscience in which the falling dust could be reflected as in a mirror.” A few pages later he wrote: “I was but a mere mortal lost between sand and stars, aware simply of the sweet pleasure of breathing” (Saint-Exupéry 1939, 72–74).

Being human is neither an end in itself nor a dead certainty but rather a question asking what meaning to give to our lives and how to be human.

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Only then does the question of God arise. The world is undoubtedly conceivable without God, as philosophers and science in the modern era have taught us and perhaps even tried to force upon us. But is it conceivable that we should not ask this question at all? Few people, I think, would say that it is. Religious systems go one step further, affirming in a variety of ways that God exists.

Many religions preserve the mark of worship of a divine personification of the sky or a Supreme Being residing there. Indeed, religious historians often have pondered whether Uranian wonderment—Uranus is the Greek god of the sky—might not underlie religious sentiment. Mircea Eliade speaks of “the almost universal belief in a divine celestial Being as the creator of the Universe and guardian of Earth’s fertility (through the rains He sends down from the sky).” In this sense, he adds, there must be a primitive religious experience that is in no way related to speculation, imagination, and myth but is immediately perceivable to the human consciousness through sacred or divine revelation. “The sky, through its mere existence, ‘symbolizes’ transcendence, strength and immutability. It exists because it is *higher, infinite, immutable* and *powerful*.” He concludes: “Consequently, everything that occurs in sidereal space and the upper regions of the atmosphere—the rhythmical revolutions of the stars, the passing of clouds, storms, lightning, meteors and rainbows—is a moment in this same hierophany” (Eliade 1949, 47–49).

Perhaps Eliade errs on the side of dogmatism or is too quick to generalize. Is it not an exaggeration to interpret all contemplation of blue skies or the star-studded celestial vault as the first sign of a religious experience? In writing the lines quoted above, Saint-Exupéry makes no reference to religion but rather appears to be attempting to locate and name “ethereal nothings” (Shakespeare). The link between Sky and Earth is nonetheless established; these often are understood as the two halves of the primitive Egg that gave birth to our world. For example, while the sky is masculine in Chinese culture, it is feminine in Egyptian tradition: In Heliopolis, Shou, the male deity, and Tefnout, the female deity, gave birth to the god Geb, the foundation of the Earth, and the goddess Nout, the celestial vault. Because Nout thus encompasses the Universe and gave birth to the Sun, the god Re, she was called “mother of the gods and men.”

The sky sometimes designates divine power or a deity—even the Bible sometimes uses the term *heaven* in place of *God of heaven*—because it is the seat of deities, but it is also that of the blessed: The heavens are ordered according to a hierarchy of successive spiritual states. For example, guardian spirits (called “little green men” in some places) and shamans use passages near the Polar Star from one heaven or world to another. Shamans also bring back the souls of the sick and take those of the dead or sacrificed animals and establish contact with spirits and their god through these passages.

The authors and readers of the Bible lived in a similar cultural and mythological context. They, too, were sensitive to the charm and fascination of the skies, especially of the East. However, they were careful—at least officially—not to assimilate or, worse, confuse the celestial with the divine. One of the best-known illustrations is the way the Sun and Moon are reduced to the rank of mere lights, not created until the fourth day, in the first account of creation in the Book of Genesis: “And God said, Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, and years: And let them be for lights in the firmament of the heaven to give light upon the earth: and it was so. And God made two great lights; the greater light to rule the day, and the lesser light to rule the night: [he made] the stars also” (Genesis 1:14–16 KJV). Exegetes have of course pointed out that the author of this passage did not name these “lights,” the Sun and Moon, as if to say “Do not worship them!” and to confer on them the purely functional role of illuminating Earth.

Should we take this view a step further by considering that the skies occupy only a secondary, functional or indeed decorative role in the biblical account of creation? As strange as it may seem, the Bible does not describe heaven as the place where God resides, sitting on his throne, a place to which all earthly creatures aspire as they would to a lost fatherland or a promised paradise. Strictly speaking, there is no celestial beyond. The heavens exist first of all through the missions entrusted to them: to retain the waters precipitated to nourish the soil, to ensure the proper passing of time, and to praise the beauty of an all-powerful God. Their boundaries are defined by the comings and goings and activities of their Creator. Admittedly, other Bible passages and Christian tradition itself have used the image of heaven to refer to the dwelling place of God and God’s chosen ones. The creation accounts show extreme reluctance to do the same.

This image serves two purposes: to uphold the radical transcendence of God over all creation and, paradoxically, to leave God free to draw near to Earth and its inhabitants. Before any mention of incarnation, these accounts seek to present God as the One who walked in the garden of our distant ancestors in the cool of the day, or as the One who closed the door of Noah’s ark with his own hand before releasing the floodwaters. Thus, in divesting heaven of all its sacred or divine attributes, the Bible writers have not distanced God from creation.

EACH TO HIS OWN HEAVEN

I am not some anonymous being on an insignificant minor planet drifting in circles through space, for a time, just anywhere. I walk with confident step on a solid Earth. It is fixed. It is the centre of the Universe. As for me, I am also at the centre. And the eye of the Creator is on me, and on me alone. Above me, tethered to the eight crystal spheres, turn the fixed stars and the prodigious Sun, which was

created to shine on everything around me, and on me, so that God can see me. Thus, visibly and irrefutably, everything depends on me, man, fruit of Divine effort, the creature of His own provenance, the image of God, enduring, and . . . the aged cardinal collapses. (Brecht 1994, scene 6).

Following the work of Copernicus, Galileo, and their successors, the geocentric theory also collapsed, like the venerable cleric, and heliocentrism itself was put into perspective: The universe appears as “a circle whose centre is everywhere and whose circumference is nowhere,” to quote the expression of the Stoics, brought back into fashion by Nicolas de Cuse, a cardinal otherwise more open to the development of the sciences. But for all that, the case presented by modern astronomy is far from being solved. It is not limited to questions of a pure astronomy but also contains various theological components, particularly concerning the status of the Bible. Without doubt, Galileo already has claimed a certain autonomy of scientific reasoning with regard to the scriptures. In his famous *Letter to Christina of Lorraine*, he affirms that the Holy Spirit, who inspired the Bible, did not want to teach us “whether heaven moves or stands still, whether its shape is spherical or like a discus or extended in a plane, nor whether the earth is located at its center or off to one side.” In other words, the Holy Spirit’s intention is to “teach us how to go to heaven, not how the heavens go” (Galileo 1615). And yet, this claim, which Stephen J. Gould (1999) has called the non-overlapping magisteria of science and religion, is still an issue. The Roman Catholic Church reminds us in its *Catechism* (1992), and according to Vatican II, of the fourfold sense of scripture, as summarized by the famous medieval distich: “The literal sense teaches us about events, the allegorical about what we should believe, the tropological what we should do and the analogical what we should strive towards” (no. 118). The important thing is to find out what God wants to reveal to us in the scriptures, instead of just stopping at the movements of the stars.¹

So, has the venture into space adopted Galileo’s claim? The famous words of the first cosmonaut might lead us to think so.

In Gjatsk, Yuri Gagarin’s home village, celebrations are in full swing. Some 70 days after his historic voyage into space, Gagarin is finally coming home. His old house has already been turned into a museum, the village park is decked out for a mass celebration, and a crowd is waiting for him at the station. Someone asked him: *So, Yuri, did you see God up there?* No, he had not seen God. Amused by his own reply, he thought: *I’ll have to use that one again.* (Gauthier 1998, 209)

But the Soviets are not the only ones to have journeyed to the heavens. . . .

GOD IN SPACE

The Americans took an attitude toward religion very different from that of their Russian rivals. Responding to the fear that the Saturn V rocket was a chariot of satan [sic], Wernher von Braun, the father of the Saturn V rocket, gave the event a religious spin, claiming that it was contributing to the

spread of the gospel throughout the universe. More extraordinary, perhaps, was the prayer of the American astronauts on Apollo 8 as they orbited the Moon on Christmas Day, 1968. After launching from Cape Kennedy on 21 December, Frank Borman, Jim Lovell, and William A. Anders completed, at the height of the Yuletide festivities, ten revolutions of the Moon at an altitude of 112 kilometers. They read the first chapter of the Book of Genesis, and Borman, a lay preacher in the Episcopal parish of League City, formulated the following prayer: “Give us, O God, the vision which can see Thy love in the world, in spite of human failure. Give us the faith to trust Thy goodness in spite of our ignorance and weakness. Give us the knowledge that we may continue to pray with understanding hearts, and show us what each one of us can do to set forth the coming of the day of universal peace. Amen.” (<http://todayinspacehistory.wordpress.com/2007/12/25/christmas-day-prayer-by-apollo-8-astronaut-frank-borman-1968/>)

In fact, many such benedictions have punctuated and continue to punctuate the space adventure, taking forms as diverse as the religious cultures and rites of the astronauts and cosmonauts themselves, even in the land of the Soviets. In late October 2001, French astronaut Claudie Haigneré was at the Baikonur cosmodrome for the Andromède mission to the International Space Station. Before leaving the cosmonauts’ quarters to make her way to the Soyuz launch complex, she and her two companions were honored with a special blessing pronounced by the pope. “It’s as if we’re in some kind of religious war,” claimed one journalist in the French newspaper *Libération* on 23 October 2001. “You can’t launch a rocket these days, not even a peaceful one, without having a priest stand in front of it” (Marcelle 2001, 10). In fact, that religious ceremony—albeit brief—at one of the former Soviet Union’s most prestigious facilities was, by then, hardly a revolution. The previous year, as the first French-American crew set off for the ISS, a press release announced that “in accordance with tradition, an Orthodox priest sprinkled the three crew members with holy water before their departure. The three appended their signatures on their hotel room door, which bears the image of the giant structure of the ISS.” The press release continued: “The ritual also requires that the cosmonauts urinate on one of the wheels of the bus that takes them to the launch pad at the cosmodrome, one of the space adventure’s most historic sites, from where Yuri Gagarin took off for the first manned spaceflight in 1961.” It would seem, then, that Orthodox rite and Soviet ritual go together well for those who ride the clouds.

Turning back to the Americans, Buzz Aldrin did a surprising thing just before stepping out onto the surface of the Moon. “Unseen from the Earth,” wrote Bernard Chabbert,

Aldrin brought God into his adventure, just like the conquistadors, who began their work of brutal conquest, cultural annihilation and destruction of divine creation by celebrating thanksgiving mass on the virgin sand of the newborn beach.

He opened a small bag and drew out a phial of consecrated wine and a piece of round loaf. . . . Aldrin poured the wine into a small chalice he had set near the instrument panel. As the liquid descended into the recipient, it behaved more like oil, due to the low gravity. The astronaut then read passages from the Bible and prayed before taking communion. (Chabbert 1982, 388–89)

The Europeans are not absent from this religious scene. One of the people involved in the early days of the Ariane program recounted:

I said we'd done everything that was humanly possible, then I suggested we go and place a candle at the church in Kourou. I think SEP [Société Européenne de Propulsion] had placed about 80. . . . Later, we noticed that if we omitted to place candles, the launch failed. That was the case for L02 and L05. . . . So, this act eventually became a tradition. In the final procedure, the teams mentioned this instruction: tell the inspector general about the candles. Then came the first Intelsat launch, attended by an American adviser. Fearing ridicule, Frédéric d'Allest didn't want us to mention the story of the candles in front of him. I insisted, however, explaining that, if not, the teams would be worried. At the end of the launch readiness review, while the Intelsat representative talked with Frédéric d'Allest and his attention was diverted, I took the microphone and said: "And then there were candles." Later, the NASA adviser came up to me, laughing. "You know," he admitted, "we also talk about candles back home!" (Durand-de Jongh 1998, 266–67)

WHEN ROME LOOKS TO SPACE

The popes, from Pius XII to John Paul II, all have taken an interest in the space adventure. It is beyond the scope of this essay to cite each of their involvements or provide extracts. However, the following examples demonstrate how the pontiffs have shown genuine enthusiasm for these human and technological exploits and, in so doing, have called upon us to evaluate the moral and religious issues involved.

We would like to express Our admiration for the conviction, boldness and persistence of all those who, for the last half-century, have slowly but surely sought to conquer this immense realm. . . . Until now, humanity has felt imprisoned, so to speak, on the Earth, having to content ourselves with the fragmentary information that has reached us from the Universe. It now seems, however, that the possibility presents itself to cross this boundary and access new truths and new knowledge. . . . The boldest of space exploration missions will serve only to bring new division and strife between people and nations if they do not go hand in hand with deeper moral reflection and a more conscious attitude of dedication to the higher interests of humanity. (Pius XII, September 1956)

We support these space exploits with Our prayers and Our blessing as they continue to make new progress and reach new heights of achievement. We wish them genuine success, which contributes both to fraternity and civilization. . . . Let us stay with our tasks, which transcend all the heights, all the momentum and all the triumphs of technology. And let us endeavour, with confidence and determination, to bring man closer to God and to penetrate the lives of our communities with the ferment of the Holy Gospel. (John XXIII, 16 May 1963, as the American Gordon Cooper orbited the Earth 22 times in the *Mercury* capsule)

Paul VI did not miss any of the American or Soviet missions, taking the opportunity to pay tribute to the “pioneers of the conquest of celestial space, these boldest representatives of the power conferred by the science, technology and research of modern man,” and to ask for “God’s assistance on the astronauts, on all their colleagues and on humanity, which is watching and contemplating. . . . This challenges the small-minded and empirical conception we so often have of God. It extends our infantile thinking to infinity and invites us to repeat the prayer of the Gospel—Our Father, who art in heaven—with new and profound meaning” (Paul VI, 21 May 1968).

“Modern space technology must not be employed to support some kind of cultural imperialism to the detriment of the authentic culture of human beings and the legitimate differences that have developed in the history of each people,” said John Paul II (2 October 1984, at the Pontifical Academy of Sciences). It was to John Paul II that the following petition was supposed to be addressed: “I encourage the building of the Chapel-House on the Moon—I support the inclusion of the Chapel on the Moon in the programme of festivities for Christ’s 2,000th Jubilee.” To make the operation more effective, the pontifical Web site address, *www.vatican.va*, was given. The drawing that adorned the leaflets and the scale model gave an idea of what this “Chapel-House” would look like: a series of pointed arches on the lunar surface, the highest one surmounted by a cross.

SON OF ADAM, SON OF ICARUS

The activities linked to the exploration of space mobilize a strong presence and call for deep commitment on the part of individuals and, by identification or substitution, the wider groups and societies to which they belong. These activities offer a chance to push the boundaries of the world, of life, of suffering and of death. Such situations, if imposed on us, would cause only fear and anguish, but when freely chosen bring about an extremely powerful experience of self-control, self-presence, and presence in the world. Daniel Le Breton, in a study of high-risk activities, concluded that in many cases they provide an occasion to arouse a sense of the sacred. Michel Hulin even speaks of “wild mysticism” (quoted in Le Breton 2002, 154). This numinous experience, which until recently remained the preserve of religion, mysticism, or asceticism, can now be attained through extreme sports and even space travel. In June 2002, after his mission on the International Space Station, French astronaut Philippe Perrin described the shuttle takeoff as a powerful religious experience. His colleague, Jean-Pierre Haigneré, talked about his extra-vehicular activity on the defunct *Mir* space station, underlining the exceptional feeling of presence and attachment to the Earth below him. “The effort, concentration, tension, fear and resulting stress increase the climber’s vigilance with respect to his

immediate and more distant environment,” wrote mountaineer Reinhard Messner. “He sees things in a new light, with that same clarity and spiritual mobility that also come through meditation, for example. But above all, he sees himself in a new relationship with the world. For a limited time, he enters a state of extended perception” (quoted in Le Breton 2002, 154). There is no lack of examples that would lead us to think, with Arthur Rimbaud, that “true life is out there” (quoted in Le Breton 2002, 154) or that there exists another reality, a “hyper-reality,” not only of this world but, more important, in and of itself, leading to a kind of dematerialization, added another mountaineer, Louis Lachenal (quoted in Le Breton 2002, 156–57). And God is not absent from these experiences: “As you reach the summit of a mountain,” explained François Morin (another mountaineer), “as various people will tell you, you somehow feel closer to God, or something like that anyway. I’m not a believer myself, but I’ve often said: Well, if God exists, he’s not far from here” (quoted in Le Breton 2002, 156). This could almost be an answer to the famous quote by the Soviet cosmonaut Gagarin about his non-meeting with God!

These experiences cannot be ignored, given the place they occupy in Western societies and cultures, from recreation and sports to such human and technological endeavors as aeronautics and astronautics. They are not new, either. Adventure stories, sometimes tinged with mythology, are part of humanity’s past. Today, however, these experiences tend to be seen as secular or even profane, free of any direct references to religion, and can be sought, claimed, or appropriated more readily by individuals.

SPACE: THE DOOR IS OPEN

“Even if the conquest of space does not meet our inner need for the infinite,” wrote François Russo, “it gives us some valuable insight into it. ‘Space,’ said Baudelaire, ‘is a place of symbols’” (Russo 1969, 175).² Understood in this way, our conquest of space or landing on the Moon will not lead us into delusion or divert us from that deeper, more hidden sense of the infinite, which alone can meet our most profound need. Indeed, it can help us on that journey. “Was it not these very dispositions that Borman expressed in his prayer during the Apollo 8 flight last Christmas?” (Russo 1969, 175). Russo is correct: Space does not dispel that sense of the inevitable question of God that is in the heart of every human and underpins our religious structures. On the contrary, today, as ever, it leads us to that question. Despite modern science and the knowledge we have accumulated, space still holds its share of mystery, nurtured by its vast dimensions and the beauty, sometimes startling, of the images we receive. Space continues to raise the issue of meaning—the meaning of the cosmos, of life, of human existence—without providing any clear-cut answers. Today, more than ever, space arouses our sense of creativity, not just as artists but also now as

engineers and scientists. When we consider space, with all the challenges and mysteries it holds, how can we not, with the writer of Psalm 8, get a sense that we are just “a little lower than the heavenly beings”?

NOTES

This essay presents ideas developed in my book *La Lune dans le bénitier. Conquête spatiale et théologie* (Arnould 2004).

1. Another case is that of the Star of Bethlehem. More than once, the 25 December editions of our newspapers have reported the findings of an astronomer (usually an American) claiming to have identified the star that guided the Magi to the stable and the baby Jesus. It is true that our knowledge of astronomy is such that we can indeed determine the positions of the stars and planets relative to any point on Earth's surface at any time in history. By going back around two thousand years and taking the town of Nazareth as our observation point, it would be possible to detect various unusual astral phenomena; the word in Greek refers not only to stars but also to any heavenly body—planets, asteroids, comets, and so forth. In fact, the astronomer-archaeologists are not the first to try to unravel the mystery of the Christmas star. Fra Angelico, in his Nativity fresco, had already offered a solution by turning the star into a comet, undoubtedly Halley's, which regularly passes near Earth. However, the Dominican painter's choice is somewhat strange, as comets usually are seen as signs of something bad. The fascination but, particularly, the dread and fear aroused by their long tails led to the belief that comets heralded a defeat or the death of an important person. So why choose a comet to figure as the star announcing the birth of the Messiah, a happy event? This is another mystery. Concerning astrology, see Arnould 2003.

2. The French word *symbole* also means creed.

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