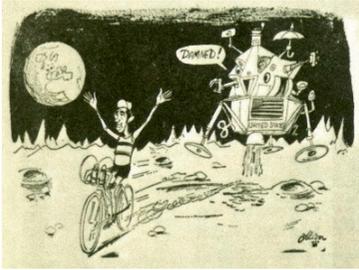


# A Bad Moon Rising

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## A BAD MOON RISING



Cartoon on the front page of the *De Standaard* newspaper – 22 July 1969



Melba Roy Mouton, head of a group of NASA mathematicians, also known as 'computers' – 1964 © NASA

On 21 July 1969, at 2.56 a.m. UTC, Neil Alden Armstrong became the first man to set foot on the moon after a four-day flight. That same day, Eddy Merckx won his first Tour de France. The single 'Space Oddity' had been released ten days earlier and people were listening to David Bowie sing: 'And the papers want to know whose shirt you wear. Now it's time to leave the capsule if you dare.' Millions of people held their breath as Armstrong and Aldrin took a giant leap some 400,000 kilometres away. Buzz Eugene Aldrin, the second man to exit the capsule, recounted that the moon walk wasn't as hard as he'd previously imagined. The Lunar Lander did not sink into a metres-deep layer of moon dust that had been accumulating for billions of years due to the lack of an atmosphere, as a NASA employee had speculated in 1955.

'For one priceless moment in the whole history of man, all the people on this earth are truly one. One in their pride at what you have done and one in our prayers that you will return safely to earth.'

President Nixon addressed the astronauts that same day and delivered a rousing and pathos-filled speech. A new era had begun. The moon landing resembled the unreal apotheosis of a last wave of optimism, one that the world was still optimistic enough to surf in the late 1960s. But change was already afoot. Just over a month later, thousands of flower children gathered in Woodstock and listened to Jimi Hendrix demolish the American national anthem on his Fender Stratocaster with a sonic bombardment. 'I see a bad moon arising,' sang Creedence Clearwater Revival at the same festival.

On 4 April 1968, Martin Luther King was murdered and, with him, the entire peaceful protest against racial inequality. On 6 May, 20,000 students marched towards the Sorbonne in Paris and triggered a wave of similar protests around the world, many of which were brutally suppressed. On 5 June, Robert Kennedy was assassinated. On 6 December 1969, a concert by the Rolling Stones in Altamont descended into chaos when some Hells Angels, acting as security staff, killed an African-American student. At the same time, millions of people were being slaughtered in the futile Vietnam War. The anti-war movement became ever more vocal and persuasive as a result. Nixon was sworn in as the new American president in 1972, surviving until the Watergate scandal forced him to resign two years later. Extreme left-wing terrorist groups were on the rise, such as the Weathermen in the United States and the Red Army Faction in Germany. Ireland was dealing with the IRA. At the 1972 Summer Olympics in Munich the Palestinian terrorist movement known as Black September took 11 Israeli athletes hostage before killing them. The group also had its sights set on the launch of Apollo 17, although the intelligence was suppressed at the time by the security services. It would also be the last Apollo mission. The decision to cancel Apollo 20 had been taken as early as 1970 and, not long afterwards, both 18 and 19 were also scrapped. This went hand in hand with a steep decline in public support for the costly space programme and a sense of general disinterest.

Despite the turbulent times, the media continued to report enthusiastically on all space-related matters. Yet even television audiences had dwindled by the time Apollo 17's lunar rover embarked on its investigative voyage. After the euphoria of the first moon landing, NASA was now in the position of having to pay the large television networks to continue their live broadcasts. Together with the Apollo programme, the Space Age – a period in the 1950s that was typified by an unbridled belief in technology and progress, a golden era of unseen economic expansion and a deep-seated belief that the sky really was the limit – was slowly dying a death.

'I can't pay no doctor bills, but Whitey's on the moon. Ten years from now I'll be payin' still, while Whitey's on the moon. The man just upped my rent last night, cause Whitey's on the moon. No hot water, no toilets, no lights, but Whitey's on the moon.'

In his 1970 song 'Whitey on the Moon,' the African-American poet and musician Gil Scott-Heron criticises the fact that citizens are being taxed to the hilt to fund putting people on the moon at a time when many African-Americans were living in poverty and subjected to racism. And he was not alone: research conducted in the 1960s revealed that 45-60% of Americans believed that the government was spending too much money on space travel. The total cost of the Apollo project was \$24 billion, equivalent to \$150 billion today. In his 1964 book *The Moon-Doggle: Domestic and International Implications of the*

*Space Race*, the sociologist Amitai Etzioni was one of the first to argue that the space programme would not result in economic progress, nor would society gain a better insight into the universe. He described the Space Race as an escapist game that avoids the real challenges facing the world. Ironically enough, many space scientists believe that the high expense of the Apollo programme had a detrimental effect on future funding: for decades afterwards, politicians refused to sink large sums of public money into space exploration. The no-holds-barred attempt to put a man on the desolate and dull globe that is the moon seems to have brought one of the most ambitious and imaginative of all scientific projects to a halt.

To date, only 12 people have stood on the moon and only 24 have ever left the earth's orbit. But the world has inevitably and fundamentally changed in the last 50 years. The technology in a smartphone is infinitely faster than the systems once used by NASA to land people on the moon (and bring them back again). After decades of simply being a grey sphere within our firmament, interest in the moon is on the rise once again. Nowadays, too, there is that fascinating duality between the blatantly obvious (geo)political or commercial motives at play and the narrative that was born of imagination, meaning and man's place within an infinite universe.

### New Space

On 6 February 2018, SpaceX, the company founded by the flamboyant entrepreneur Elon Musk, sent the Falcon Heavy into space. Musk launched a cherry-red Tesla Roadster towards Mars with a mannequin dressed as an astronaut behind the wheel. Despite there being no sound in space, Bowie's 'Space Oddity' was playing on the car stereo. The event was accompanied by a perfectly orchestrated PR campaign.

Not everyone appreciates Musk's excesses. Nathan Robinson, for example, wrote an opinion piece for *The Guardian* in which he stated: 'There is, perhaps, no better way to appreciate the tragedy of 21st-century global inequality than by watching a billionaire spend \$90m launching a \$100,000 car into the far reaches of the solar system.' And yet, with all his bravura, Musk conjures up a sparkle in the eyes of a great many people. Almost 50 years after the first lunar landing, space travel finally seems sexy and fun again. Not long after the Tesla stunt, SpaceX announced its intention to ferry the first tourist to the moon in 2023. The Japanese billionaire, entrepreneur and art collector Yusaku Maezawa is the 'lucky one.' 'I choose to go to the Moon,' he said at the press conference, paraphrasing John F. Kennedy.

The multinational Google, on the other hand, threw its weight behind the Lunar X Prize. An award of \$20 million was set aside for the first private team to land an unmanned device on the moon and transmit high-resolution footage back to earth by 31 March 2018. None of the 32 participating teams were able to meet the deadline. Several of them, however, have continued working on the project: the American company Moon Express, with interests in mining, has become the first business to receive a permit from the American aviation authorities to land on the moon. The Israeli initiative SpaceIL launched the lunar lander Beresheet on 22 February 2019. And the British company, Lunar Missions Limited, organised a crowdfunding campaign via Kickstarter for a spacecraft launch in 2024, although without success.

SpaceX, the Google Lunar X Prize and Lunar Missions Limited are all examples of a movement that is known as 'New Space': a global and privatised space industry that clearly functions differently from the traditional, government-funded space organisations. The new race to the moon has become an international phenomenon in which nation states and commercial companies all compete for the rights to exploit our biggest satellite.

Prior to this, in the 1990s, the marketing department of the fast-food chain Pizza Hut began to investigate the possibility of projecting the company logo on to the moon. The idea was abandoned, thank goodness, on the grounds that it was too complicated and exorbitantly expensive. But the company refused to give up and in 2001 paid the Russian space agency \$1 million to be the first company to deliver pizza in space (to the International Space Station). Space missions would appear to have limitless commercial potential. The Japanese space agency, JAXA, sells advertising space on its spacecraft. The US company Astrobotic Technology is working with DHL to make it possible for individuals to leave family photographs or other personal belongings on the moon



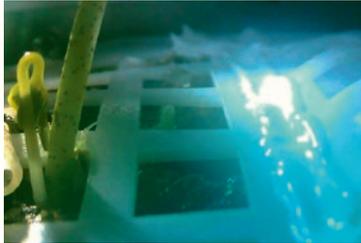
Elon Musk's Tesla Roadster with Earth in the background – 6 February 2018 © SpaceX



Photo taken by the Israeli lunar lander Beresheet – 2019 © SpaceIL

(cost: \$1.2 million per kg). The Japanese company ispace is trying to raise \$90 million to put the first billboard on the moon. And the SpaceBillboard project, developed by young scientists from Belgium's KU Leuven, aims to take a billboard into space for the first time in history. Companies such as Electrabel, GDF Suez, Microsoft and Kinopolis have already purchased their advertising spaces and, in so doing, have underwritten the cost of further space research. But is it actually legal to advertise on the moon? The answer is yes.

### Terra Nullius



The first seed to sprout on the moon –  
12 January 2019 © China National Space  
Administration – CNSA

In 1967, more than a hundred countries (including the US, the USSR, China and Japan) signed the Outer Space Treaty, an international pact stipulating that space exploration is open to everyone and that no single nation state can claim sovereignty over any terrain on any celestial body. The effect of this has been to turn the moon into a *terra nullius*: a world that belongs to no one. In 1979, this treaty was extended with a stipulation that the moon can only be used for the benefit of all countries and people and, for example, must not be used as a military test zone. The exploitation of the moon and the ownership of extraterrestrial resources were thus placed under even stricter controls. The problem with this extension, the so-called 'Moon Treaty', is that it has never been ratified by any of the powerful space-faring nations and, as a result, is not legally binding. JFK's fraternal rhetoric suddenly seems incredibly distant: 'We set sail on this new sea because there is new knowledge to be gained, and new rights to be won, and they must be won and used for the progress of all people.'

Looking back over the past decade, the New Space Race seems to have become a permanent fixture in the policies of nation states. The China National Space Administration (CNSA) has launched a series of unmanned lunar missions under the name Chang'e (after the moon goddess of the same name). Chang'e 1 captured high-definition 3D images of the moon in 2007, but also took 30 'lunar songs' with it, including the Chinese national anthem. Chang'e 4 landed on the far side of the moon for the first time, where it also germinated cotton seeds, thereby propagating the first living organism to grow beyond the earth's atmosphere. Thanks to these two firsts, China has become a force to be reckoned with in the ongoing geopolitical and economic rivalry with the US. China is currently exploring two possibilities: a manned lunar mission in 2030 and the installation of an outpost on the south pole of the moon in collaboration with the European Space Agency (ESA). The ESA is also working on the further development of both manned (Orion) and unmanned lunar missions (including those organised in association with Roscosmos in Russia). In 2008, the Indian Space Research Organisation (ISRO) sent the Chandrayaan spacecraft into orbit and used it to launch a probe that landed on the surface of the moon. The mission resulted in a scientific breakthrough when it provided the first evidence for the existence of water on the moon. As befits a potential superpower, India is planning its first manned space flight (Ganganyaan) in 2021. The Japanese Aerospace Exploration Agency (JAXA) is also working on lunar missions: the Selene, better known as the Kaguya, orbited around the moon for a period of almost two years before making a scheduled crash on the surface in June 2009. The data collected was made freely available to Google for the development of a 3D moon atlas.

The aforementioned Israeli project, SpaceIL, can also be added to this list, although the lunar lander Beresheet failed to execute a soft landing and crashed on the surface of the moon in April 2019. This prestigious project took the Israeli flag, a recording of the country's national anthem and a copy of the Torah to the moon. In addition to the first private spacecraft landing, the most important milestone seems to be that of the first 'space selfie'. The photograph shows a plaque inscribed with the words *Am Yisrael chai* (Long live the state of Israel) and the motto 'small country, big dreams.' Yet again, we hear echoes of the famous speech made by President Kennedy on 12 September 1962 at Rice University in Texas.

The efforts of Edward Festus Mukuka Nkoloso in the African republic of Zambia prove that great dreams are not only the exclusive preserve of superpowers and prosperous nation states. Zambia was also working on a space programme in the 1960s. Falling somewhere between sweet dreams and bitter seriousness, it was developed by Nkoloso, an independence fighter and the founder of the Zambia National Academy of Science,

Space Research and Philosophy. The goal: to take a girl, 17-year-old Matha Mwambwa, and two cats to the moon. At the height of the Space Race, Nkoloso hoped to beat the Americans and the Soviets. He believed his project failed due to a lack of money, the absence of media attention, and foreign interference and sabotage. It is easy to look back on this historical curiosity and feel a sense of pity. But it received the most wonderful tribute in 2012 through Cristina de Middel's photo book, *The Afronauts*. The story certainly reads more like a fairy tale than reality, but it nevertheless reminds us of the painful inequalities that still exist between countries despite a host of platitudes such as 'for all mankind' and the symbolism associated with the 'unity of human endeavour'.

No one can deny that the Apollo programme, even if only briefly, succeeded in fostering a sense of universal kinship and fuelling a passion for science, technology and engineering among an entire generation of young people. Yet this was primarily based on (geo)political and military motivations. The moon was sold as the 'New Wild West' in the 1960s, a myth so deeply rooted in the American psyche that it has never lost its allure. Or to quote two sentences from the legendary title sequence of the original *Star Trek* series (1966-69): 'Space: the final frontier. [...] To boldly go where no man has gone before!'

'This time, we will not only plant our flag and leave our footprint, we will establish a foundation for an eventual mission to Mars and perhaps, someday, to many worlds beyond.'

In December 2017, Donald Trump signed a new presidential decree that committed the United States to sending a crew to the moon in 2024. Six months later, he raised eyebrows once again when he addressed a meeting of the National Space Council and stated that having a presence in space was not enough; the goal was American dominance. Trump called for the creation of a genuine Space Force as a new sixth department of the US Army. Military activity beyond the atmosphere looks increasingly possible. Both China and Russia have tested their capabilities by shooting down old satellites of their own making.

Space is no longer a peaceful realm and there is a real chance that (geopolitical) conflicts will acquire an extraterrestrial spur. But the renewed focus on the moon also seems to be coupled with very specific economic interests. At the heart of all this attention is helium-3, a noble gas that is barely present on earth and is regarded as the ideal fuel for nuclear fusion because it releases almost no radioactivity. The entire lunar extraction process would be far simpler and cheaper than an equivalent system on earth. The colonisation of the moon no longer seems to be the stuff of science fiction stories. Whether mankind is doing the universe a service, and whether these lunar developments will benefit everyone, remains to be seen.

### The Overview Effect

In the 1980s, the American space philosopher Frank White coined a new term: 'the overview effect'. For his book of the same name, he interviewed astronauts and noted the great emotional impact that viewing the earth from afar can have on a person. Astronauts were the first people to see the earth in a completely new way: not as something abstract but as a unique, vulnerable and fragile entity, a planet floating in a sea of unfathomable nothingness. Upon their return, they appeared to be more interested in the beauty of the earth and felt a deep connection with all living things.

Since the 17th and last Apollo mission of 1972, no one has travelled far enough to be able to see the whole earth in its entirety. During Apollo 17's voyage, the crew members took the famous 'Blue Marble' photograph: the first clear picture of the perfectly spherical earth. The South Pole and a large part of the African coastline are clearly visible. Captured during an idle moment, the picture was taken by accident. It is now one of the most widely disseminated photographs of all time. This iconic image also became an important symbol of the environmental movement during the 1970s. It is fascinating to think that the most meaningful and enduring image taken during the Apollo missions was probably created by pointing the camera lens towards 'home'. Who would have thought that the most convincing argument for investing so much money, time and effort in the Apollo programme would be the ability to look at ourselves from afar and to understand, for the first time, the inconsequential and fragile nature of our existence? Apollo, the Greek god of sun and light, embodiment of rational beauty and order.



Apollo 11 astronaut Buzz Aldrin at Stonehenge – March 2015 © James O.Davies



'Blue Marble', photographed during the Apollo 17 mission – 7 December 1972 © NASA



Earthrise images photographed during the Japanese Kaguya mission – 2008 © JAXA

Another iconic image is 'Earthrise', which was taken on Christmas Eve 1968 by astronaut William Anders during the Apollo 8 mission, the first manned spaceflight to exchange the Earth's orbit for that of the moon. 'Earthrise' is the first colour image of our planet to be taken from space. Just like the 'Blue Marble' photograph, this picture had a direct impact in terms of raising global awareness about environmental issues. It's no coincidence that the world's first Earth Day event was held some 16 months later. The Apollo 8 flight was broadcast live on television that Christmas Eve and broke all viewing figures. The crew read the first ten verses from the book of Genesis – a not wholly uncontroversial gesture during a secular mission that was funded by taxpayers' money and broadcast around the world. The astronauts concluded with the words: 'Good night, good luck, a Merry Christmas, and God bless all of you, all of you on the good Earth.'

### Cold War Warriors

Cosmonaut Yuri Gagarin took a different approach and declared on 12 April 1961, aboard Vostok 1, that he saw no evidence of a god floating above the earth. Gagarin was the first man to enter space and the first to make an orbit around the earth: a clear victory in the Space Race with America. The Soviets were also the first to succeed in sending living creatures into orbit (in 1968) and in photographing the far side of the moon (as early as 1959). Only ten years later, the American crew of Apollo 8 would become the first people to see the furthest side of the moon. This American mission, which was originally supposed to be very different, was a calculated gamble inspired by the race with the Soviet Union. Or, as the Apollo 8 commander Frank Borman would later let slip: 'Everyone forgets that the Apollo programme wasn't a voyage of exploration or scientific discovery, it was a battle in the Cold War and we were Cold War warriors.'

And yet Kennedy's predecessor Dwight Eisenhower was not a huge fan of space travel in the late 1950s. The all-powerful anti-communists in the American administration, however, had predicted an apocalyptic nightmare if the Soviets gained exclusive control over space. Eisenhower was reluctantly drawn into the space race. During his farewell speech, he warned against the adverse impact of the growing military-industrial complex. In January 1961, John F. Kennedy moved into the White House and he too expressed a reluctance to expand the rocket programme, or at least at first.

In April 1961, however, Yuri Gagarin made headlines around the world as the first person to enter space. Barely four days later, the invasion of the Bay of Pigs in Cuba ended in spectacular failure. Kennedy's first six months as president were a disaster and his young, dynamic image was beginning to falter. In September 1962, he astonished both friend and foe alike by announcing that it was his dream to land a man on the moon by the end of the decade. Given that NASA was not then at the forefront of scientific developments, it was an incredibly ambitious idea. And yet the dream became a reality. All thanks to the German rocket scientist and *Sturmbannführer* Wernher von Braun, who had designed the V-2 missile during the Second World War. Of course, Kennedy was perfectly aware that he was hitting a sensitive chord in the attempt to realise his dream. A dream that people had fantasised about for centuries in countless stories, books, music, films and drawings.

The Space Race ended when the Apollo 11 crew planted the American flag on the moon. But its origins date back to 1957, with the launch of Sputnik 1 by the Soviet Union. It was a moment that caught the entire world by surprise. Soviet launches were shrouded in secrecy until brought to a successful conclusion. The audience back home would always be given the positive news. Cosmonauts who died in the line of duty would be quietly erased from the annals. It wasn't until the 1990s that the Soviet Union revealed they had made plans in the 1960s to land people on the moon. The state-controlled media never missed an opportunity to showcase and celebrate Soviet scientific achievements via a wealth of printed propaganda that honoured and glorified the fatherland. Yuri Gagarin became the ubiquitous poster boy for communism. And not just at home: people all over the world fell in love with his disarming smile. After his successful space voyage, he embarked upon an international victory tour that also proved popular in the West.

The situation was not so very different on the American front. NASA might have communicated with greater transparency than the Soviets, but it was also in their best interests to maintain good public relations. The organisation developed a sophisticated strategy for content management and branding, by which they hoped to positively



Walt Disney and Wernher von Braun – 1954 © NASA



USSR propaganda poster:  
'Glory to the Soviet people –  
pioneers of space!'



Cover of *Life* magazine –  
21 September 1959



Unknown photographer

influence people's perceptions. For example, NASA decided that all the photographs taken in space would be part of the public domain, thereby ensuring that they were distributed far and wide. And from the very beginning, they employed former journalists to determine which stories ought to be placed in the spotlight. One of the most remarkable collaborations of all, however, was that between NASA and *Life* magazine.

### Proud, Thrilled, Happy

In 1957, the famous and influential *Life* magazine paid the Mercury 7 astronauts a total of \$500,000 for stories about their private lives. A glamorous group portrait of 'the astronaut wives' appeared on the cover in 1959, accompanied by the words: 'Their inner thoughts and worries.' The astronauts' wives became celebrities in their own right, almost like 'reality stars' before the term had even been invented. The magazine painted a picture that was all apple pies and cocktail dresses, and printed photographs of the immaculately dressed women lovingly tending their children in stylish living rooms. The astronauts, in turn, were portrayed as caring boy scouts (it was not until 1983 that a female American astronaut entered space for the first time).

The Friendship 7 mission of 1962 saw the first American enter into orbit. Rene Carpenter, the wife of the chosen astronaut, John Glenn, discussed her feelings about this triumph in great detail across several editions of *Life* magazine. Carpenter would later confess that there were occasions when she and her children would flee the house in secret to avoid the journalists camped outside and their barrage of questions: 'At the end, we often feel emotionally drained. We tend to fall back on the comfortable phrases and words, like "happy, proud and thrilled."' The wives of the Apollo 12 astronauts would later poke fun of this ritual by wearing identical clothes, backcombing their hair and holding up placards carrying the same message.

The astronauts themselves were forbidden from talking about the missions during this period, but the personal background stories and accompanying photographs were priceless tools by which NASA could showcase the righteousness of the astronauts and thus of the entire project. Photographer Ralph Morse, whom John Glenn lovingly called 'the eighth astronaut,' documented the preparations and private lives of the astronauts and their families for 30 years on behalf of *Life*. These reportages were relatively innocuous: the men were heroes and nothing would be allowed to detract from this fact.

The first issue of (the renewed) *Life* appeared in 1936. Radio and newspapers were the dominant news mediums at the time, but *Life* soon became famous for its visual imagery. At its peak in the 1950s, some seven million copies were read by more than 20 million people. The weekly magazine had cornered the market in high-quality photo reportage. Often featuring bold layouts, the pages were constructed around the images. All the best international photographers wanted to work for *Life* and the magazine, in turn, was responsible for launching countless careers. *Life* played a pioneering role in communicating stories through images and almost single-handedly created the genre of the photo essay. Important events such as the Great Depression and the Second World War were captured in photographs so powerful that they became almost instant icons.

But the photojournalism fairy tale was destined to end. From the end of the 1940s onwards, the new medium of television started to gain ground. While newspapers remained the dominant force in terms of newsgathering, television provided entertainment and the rapid retransmission of images. *Life* couldn't hope to compete against the irresistible combination of image, sound and movement and, from the late 1950s onwards, its influence began to wane. The coverage of Kennedy's assassination was a breakthrough for television news and the Vietnam War was the first conflict to be broadcast directly into people's living rooms. *Life* closed in 1972. It was relaunched as a monthly magazine in 1978, but was never able to recapture its topical relevance.

This was the era in which television swallowed up both the radio and the magazines. A new invention – videotape – also made the collection and distribution of audiovisual material much cheaper and simpler. And satellites have been beaming images from one side of the world to the other at lightning speed since 1968, thus marking the start of what has since become an insatiable 'global village'.

It is almost impossible to imagine, in the age of the internet, the enormous impact of the live broadcast from the moon in 1969. On a fraction of the number of screens that are

currently in circulation, some 600 million people watched the Eagle lunar module land on the moon's surface. The juddering images and tinny voices of the astronauts immediately became part of our cultural heritage. They are still anchored in the collective memory. Wernher von Braun compared the moon landing to one of the most radical adaptive shifts in evolutionary history, namely when the first animals left the water to live on land.

### **Forever Mankind**

The moon has been a source of inspiration for myths, legends and rituals since time immemorial. The monochrome primal image of the moon is essentially a simple, abstract form. A perfectly cool, pale sphere, floating ephemerally in a pitch-black sky. An empty page upon which we project our desires, fears and fantasies. Luna is the Roman goddess of the moon; the Greeks worshipped Selene, the sister of Eos and Helios.

In the words of the Italian writer Italo Calvino: 'As soon as the moon has risen in the poets' verses, it has always had the power to communicate a sense of weightlessness, of suspension, of mute and calm enchantment.'

The moon landing seemed to break this enchantment. As a utopia, the moon lost its magic, and some even saw the male conquest of the female moon as a symbolic attack: it had lost its virginity.

Yet it could have all turned out so differently. President Nixon's speech writers had already prepared addresses for all eventualities, including the possibility of Armstrong and Aldrin being left behind on the moon. Had this happened, Nixon would have concluded his speech with the words: 'For every human being who looks up at the moon in the nights to come will know that there is some corner of another world that is forever mankind.'

Despite all the beautiful and inclusive rhetoric, the moon landing is essentially a Western triumph. One might call this a cynical statement, but it would be to ignore the fact that mankind is genuinely enraptured. Much of what was once considered implausible has actually been achieved, although the dividing line between fact and fiction is wafer-thin in space. It was a beautiful and daring moment of pure theatre, the second act of which is about to begin. What will be the next 'giant step'? Will the old rules of the survival of the fittest also apply in space? Or will we work together to turn it into a peaceful, just and fraternal place, even though these qualities currently seem in short supply on earth?

Fortunately, Selene remains her sovereign self, immutable and indifferent to the human species and all our desires. Do we now know, thanks to the impressive photographic archive, what the moon really looks like? Or does Luna still appear as an immense fictional and imaginary landscape? Perhaps the moon can only be contained by maintaining our distance. Let us forget we've ever been there and start dreaming again.



Anne-Louis Girodet-Trioson (FR) –  
Le Sommeil d'Endymion – 1792



Postcard of a scene from *Frau im Mond*,  
a German film by Fritz Lang – 1929

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**Select bibliography**

Andrew Smith, *Moondust*  
(Bloomsbury, 2006).

Bernd Brunner, *Moon: A Brief History*  
(Yale University Press, 2010).

Lily Koppel, *The Astronaut Wives Club*  
(Headline Publishing Group, 2013).

David Meerman Scott & Richard Jurek,  
*Marketing the Moon: The Selling  
of the Apollo Lunar Program*  
(MIT Press, 2014).

Norman Mailer, *Moonfire;  
The Epic Journey of Apollo 11*  
(Taschen, 2015).