II. The New Scientific Revolution

Destination Moon? The Next Frontier For the Common Aims of All Mankind

by Kesha Rogers and Ben Deniston

"The Moon is the touchstone of the human future."

-Krafft Ehricke

Aug. 28—China is opening up a new frontier in mankind's exploration of the Galaxy! Earlier this year, China announced that it plans to be the first nation to land on the far side of the Moon, when it launches its Chang'e 4 mission in 2018. This comes in the context of increasing interest, on the part of China and Russia, in returning mankind to the Moon, possibly including permanently manned bases. China is taking global leadership in mankind's conquest of space.

Lyndon LaRouche responded to these developments by calling for a full mapping of the Moon, especially the far side. While the lunar far side has been imaged and investigated from lunar orbit, mankind is far from uncovering all of the secrets the lunar far side is hiding, and can only imagine what the implications of tomorrow's discoveries will be for transforming mankind's relation to the Solar system and beyond.

China's lunar exploration program clearly indicates that China is not just making a new landing site on the Moon's surface, but opening up to mankind what German-American space pioneer and aeronautical engineer Krafft Ehricke once described as the "seventh continent" of the world. By doing so, China—in collaboration with Russia and other nations—establishes mankind as a truly polyglobal species.

Ehricke and the Common Aims of Mankind

The world is moving forward, and the vision for a new paradigm is already in being, despite the refusal of the United States to join in the win-win cooperation offered by China for the benefit and progress of all nations.

Instead, President Barack Obama has dismantled and privatized our U.S. manned space program, bailed out the bankrupt speculators of Wall Street as they continue to plunder the physical economy, and launched a series of illegal wars around the world. By aborting the Constellation program—which focussed on the Moon



White House Photo/Pete Souza

Former astronaut and Senator, John Glenn, expressed his concern over the idling of the U.S. manned space program in this July 19, 2010 meeting with President Obama. Obama had announced his radical change in the direction of NASA on April 15, 2010. Left to right: Dr. John Holdren, director of the Office of Science and Technology; Glenn; Obama; Rob Nabors, senior adviser to the chief of staff.



President John Kennedy is inspecting the interior of Friendship 7, the capsule in which John Glenn (to the right of Kennedy) became the first American to orbit Earth.

as a critical, permanent destination for the exploration and development of space-Obama eliminated our nation's ability to lead a manned presence in space for the foreseeable future. Not only has the project to return to and develop the Moon been scrapped under Obama, but an insane project to capture an asteroid was set up to replace it. Meanwhile, research on thermonuclear fusion power has also been cut.

How long will Americans condone such insanity? We must demand a restoration of a national mission for the development of space outlined by such visionary leaders as President Kennedy and Krafft Ehricke, who saw the Moon not just as a temporary attraction or landing ground, but essential to mankind's development of the Solar system.

China's emphasis on lunar development, with its focus on landing on the lunar far side, is a critical phase of a science-driver program essential to international cooperation and economic development around the planet and beyond. Lunar exploration and space development must be defined in terms of a program for economic development of the Moon, needed in conjunction with a crash program for fusion power, as described by Lyndon LaRouche as a shared vision of his and his wife Helga's association and friendship with Krafft Ehricke.

Ehricke also envisioned and mapped such a program in great detail. In his 1985 article on "Lunar Industrialization and Settlement," he states, "The most important aspect of lunar development lies in the human sector. It bears repeating that technological progress and environmental expansion are no substitutes for human growth and maturity, but they can help the human reach higher maturity and wisdom." He explains,

Human growth is contingent not only on the absence of war, or overcoming hunger, poverty, and social injustice-but the presence of overarching, elevating goals, and their associated perspectives. Expanding into space needs to be understood and approached as world development, as a positive, peaceful, growth-oriented, macrosociological project, whose goal is to ultimately release humanity from its present parasitic, embryonic bondage in the biospheric womb of one planet. This will demand immense human creativity, courage, and maturity."

It is with these common aims of mankind in mind that nations around the world, led by China and Russia, in defining a unified mission for the unfolding of mankind's truly creative nature, take up the Moon as a stepping stone destination for mankind's development of space. China's statement of principle for space exploration declares that, "Outer space is the commonwealth of mankind. Exploration, development, and utilization of outer space are an unremitting pursuit of mankind."

China and Russia Take the Lead

China's lunar exploration program is currently leading the way. In December 2013 the world was gripped with excitement when China made the first soft landing on the Moon in 40 years with its Chang'e 3 mission carrying the Yutu rover. Now China has announced that its 2018 Chang'e 4 mission will make mankind's first ever landing on the far side of the Moon.

Because the Moon makes one rotation on its axis in the same time that it takes to complete one orbital rotation around the Earth, the same side of the Moon is always facing our home planet, leaving the far side shrouded in mystery.

Although the far side was imaged from lunar orbit in 1959 by the Soviet Union-and at higher resolution in 1967-1968 by NASA's Lunar Reconnaissance



Fusion/Christopher Sloan

An artist's depiction of Selenopolis, Krafft Ehricke's city on the Moon, housing thousands and powered by fusion reactors, seen under construction on the right. The city is connected to mining and manufacturing sites on other parts of the Moon. The industrial development of the Moon will process lunar materials, including those obtained by underground mining.

Orbiter—mankind has barely scratched the surface. In discussions over the past week, Lyndon LaRouche called for a full mapping and investigation of the lunar far side, and everything it may represent for mankind.

nkind. For example, the geology on the far side—as we spectrum in terms of im

know it so far from photography and radar (microwave) imaging-is anomalous compared to the near side. It provides a relatively undisturbed record of the early history of the Moon, but it also preserves traces that can tell us about the changing and developing Solar system and the Galaxy beyond. The Chinese have wisely chosen to land the Chang'e 4 mission in a particularly interesting location on the far side, the Aitken basin near the south pole. It is possibly the largest, deepest, and oldest impact crater on the Moon.



China launched its Lunar Exploration Program in 2004, to be carried out in three phases: 1. to orbit the Moon and capture lunar surface images; 2. to achieve unmanned landing on the surface of the Moon and deploy a lunar rover to explore the landing area; 3. to return lunar samples to the Earth.

Chang'e 4 will also continue China's investigation into critical questions of the distribution of water, metals, and other potential resources, including the superb fusion fuel helium-3, which is almost absent on the Earth. Approximately 50 tons of it could power the entire United States for one year. It is thought that the far side, and possibly the Aitken basin specifically, could have higher concentrations of helium-3. Top Chinese officials have made clear their interest in developing the Moon's helium-3 resources to power the Earth for thousands of years into the future.

The lunar far side can also open up a completely

new window for viewing the universe. The Earth is a very noisy place, especially in certain lower frequencies of radio waves, making it impossible to observe the lowfrequency radio sky from Earth or Earth orbit. This is the last major, unexplored region of the electromagnetic spectrum in terms of imaging the universe, and it can uniquely be opened up from the lunar far side, where observation systems would be shielded from the Earth's radio noise. Again, China is making the first steps towards exploiting this window by including low-frequency radio observation systems on the 2018 Chang'e 4 far side landing mission.

China's lunar exploration program—which also includes sample returns as part of the Chang'e 5 and Chang'e 6 missions—is laying the groundwork for the fulfillment of Ehricke's vision for the permanent development of the Moon.

Russia, long having declared its interest in a permanent lunar base, is accelerating its efforts to develop a new "super heavy-lift rocket," capable of bringing manned missions to the Moon, something which hasn't existed since Apollo's Saturn V rocket. Russia's first systems could be ready as soon as the early 2020s, and China is looking at the early 2030s for the readiness of its own super heavy-lift rocket system.

Chinese scientists are also working on a feasibility study for a manned radar station on the near side of the Moon, capable of generating high-intensity beams that can reach the Earth and be reflected back to the lunar station, to provide unique data on Earth's extreme weather conditions, global earthquake activity, the polar ice caps, and more.

Other plans for manned lunar development are either in the works or being discussed, including by the head of the European Space Agency. At last, under the leading efforts of China and Russia, the beginnings of Ehricke's vision appear to be on the horizon.

Krafft Ehricke declared, "Our work in space will change Earth's present closed world environment into an open one with access to vast space resources and other critically needed benefits that will greatly improve the lives of all people, and preserve Earth at its best—as man's home and garden for the maximum human future."

These goals, defining a common mission for the progress of all mankind, cannot be accomplished in a paradigm defined by the thermonuclear war threat, the ongoing economic collapse, and the bestialization of human beings, keeping them in an embryonic stage of immaturity. Only through the forming of a new paradigm and the opening of the age of reason will we come to fully realize our truly human potential.



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