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Glad moon rising
A world-systems perspective on the world in space

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The US’s petroleum expenditures far exceed those of its civil space program, estimated by:

- The costs of oil extraction in places barely accessible to current technology (i.e., deep sea drilling)
- The construction of a world-dominating empire

The first expenditure was depicted by the recent Gulf of Mexico spill. Chalmers Johnson has discussed the second expenditure. Among imperial costs is the American empire’s military space arsenal, devoted to targeting hostile actors and assets, and killing foreign satellites that counter American interests (2004).

After “flags and footprints” missions to the Moon, the division between American military and civil space endeavors became distinct in function and in cost. The civil space effort functions to explore science and to expand the human ecology off the Earth. The military space effort functions to dominate the world. The latter’s true costs are buried in black budgets that exceed by an order of magnitude the miniscule American civil space budget that yearly approximates the annual funding for the US’s National Park Service. Despite massive funding, gaining the high ground by space militarization cannot get humans to the high ground. The US’s military space systems are unmanned.

There is no infrastructure in space today that would see humans permanently living and working there. The Nixon Administration downmoded and de-coupled a twinned civil space project that would have ensured that goal. A reliable, frequently launched space transportation system and a large livable beachhead in space became the Space Shuttle and the International Space Station (ISS). The original project would eventually have deployed space-based energy systems for use on Earth. Solar–microwave electrical generation technology alone could transform capital and the technological means of production.

Moreover, the United States has retired its remaining Space Shuttle fleet and is withdrawing from the ISS. It has scrapped development of Constellation, the return-to-the-Moon program. These are signs that its military space aims are more important. Why should the United States occupy any other world when it can dominate this one?

Fortunately, there is a glad moon on the rise. The civil “Space Race” model has given way to a transnational approach beneficial to the global collective. Space production enabled advanced
globalization that has allowed routine transnational transactions. In turn, the thing effected has transformed space production. Space has been “globalized” (Dudley-Flores and Gangale 2007).

First, space-based systems are essential to monitoring and mitigating climate change and other natural and anthropogenic problems that can be imaged from space. The discovery of the ozone hole led to its repair. Following the South Asian Tsunami, scientists realized that existing Global Positioning System (GPS) satellites could detect tsunamis within about a 15-minute lead. Second, space technologies can inform green innovation in ways that Earthbound attempts cannot, in order to better run an increasing clutch of advanced industrial societies. Living and working in the most extreme of environments—space—can achieve sustainable technologies for an advancing world-system of societies (WSS) on an Earth growing ever more extreme. The solar power systems that keep ISS operational are but one example. Third, long-term space projects are necessarily transnational, requiring guaranteed multi-year funding streams that no one nation-state or corporation can sustain.

Most terrestrial green technologies hawked today are “green wash.” There is nothing transformative about such huckstered technologies; not in the way the plow transformed agriculture, in the way the computer created the Information Age, and in the surge of technologies that the Apollo space program gave the world. Green innovation, like alternative energy systems, requires getting “out there.” The first step is a large, quality-of-life, industrial grade space station on orbit and its attendant infrastructure. Such a testbed also ensures human permanence in space that would eventually lead to a multi-planet economy in the inner solar system, a multi-world-system of societies, and the supplanting of the Westphalian nation-state with the transnational state (Dudley-Flores and Gangale 2009, 2010; Gangale 2009).

On present-day Earth, space-capable societies that participate in the transnational approach are changing the core and periphery of the civil space enterprise (Dudley-Flores and Gangale 2007: 7, 25–26). The partnerships led by the supranational European Space Agency and China, Russia, and India are lofting monitoring and mitigation systems, working on green technologies, and planning human spaceflight ventures. In the meantime, the United States suffers a lack of focus regarding its civil space policy (Hearsey et al 2009). While the United States slides further from the WSS’s core owing to declining civil space production and other reasons, its militarist space strategy could see the United States coveting things it views as having high value while a transformation of capital is devaluing those global interests. Such a space strategy may be unable to aid mitigation of the large-scale natural and anthropogenic challenges to the WSS. The United States could be positioning itself for a dependent, peripheral role in an increasingly interdependent WSS where core societies are those that can provide assistance throughout the WSS through their cooperative space resources and systems.

References


