

Iron Butterfly

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In October 2020, *Forbes.com* breathlessly reported that the Hubble Space Telescope had uncovered new information on what they described as “one of the most intriguing and most valuable asteroids we know of.”¹ The asteroid in question, which is located in the main asteroid belt between Mars and Jupiter, is named ①6 Psyche, after the Greek goddess of the soul. (The number “16” refers to the order in which it was discovered.) Psyche is intriguing to astronomers because, unlike most other asteroids, which are made of rock and ice, it appears to be made entirely of metal, specifically iron and nickel. This composition is similar to the Earth’s core, and Psyche may in fact be the exposed core of a failed planet. In order to find out more about this unique asteroid, NASA are sending an unmanned spacecraft, also named Psyche, which is scheduled to launch this summer on 1 August aboard a SpaceX rocket and will reach its namesake in 2026. No doubt this mission will be of great scientific value, but this is of course not what *Forbes* mean by “most valuable.” As the magazine reported back in in 2017, when NASA first announced their mission, the asteroid’s vast quantities of iron and nickel are estimated to be worth a staggering US\$ 10,000 quadrillion (10¹⁹). “If anyone could mine that asteroid,” the article’s author muses wistfully, “the resulting riches would collapse the paltry Earth economy of around \$74 trillion.”²

It is hardly necessary to point out the patent absurdity of such calculations. There is, however, something apocalyptic about such fantasies of interplanetary capital accumulation and resource extraction that is worth considering. A kind of eschatological eros; a fascination with the world-destroying power of money. *Fiat pecunia, et pereat mundus*. This attitude is

¹ James Carter, “Hubble examines massive metal asteroid called ‘Psyche’ that’s worth way more than our global economy.” *Forbes.com* 26 Oct. 2020.

² Brid-Aine Parnell, “NASA will reach unique metal asteroid worth \$10,000 quadrillion four years early.” *Forbes.com* 26 May 2017. The lead scientist on NASA’s Psyche mission, Lindy Elkins-Tanton, is invited to reflect on the practicalities of such an operation: “Even if we could grab a big metal piece and drag it back

here ... what would you do? Could you kind of sit on it and hide it and control the global resource — kind of like diamonds are controlled corporately — and protect your market? What if you decided you were going to bring it back and you were just going to solve the metal resource problems of humankind for all time?” Such dreams of a post-scarcity future are quickly dismissed as “wild speculation,” however.

poignantly satirized in Adam McKay's *Don't Look Up* (Netflix 2021), in which a mission to save the Earth by *deflecting* an impending comet is aborted at the last minute because of the large quantities of rare-earth metals and other resources it is found to contain. Tech billionaire Peter Isherwell, an amalgam of Steve Jobs, Mark Zuckerberg, and Elon Musk, justifies the plan to break up the comet and extract its resources on the grounds that once "these treasures from heaven are claimed, poverty as we know it, social injustice, loss of biodiversity, all these multitudes of problems are just going to become relics of the past" and humanity will stride confidently "through the Pillars of Boaz and Jachin" into a glorious interstellar future.³ But this promise of a utopian golden age to come is entirely contingent upon the continued unimpeded extraction and accumulation of capital beyond the limits of the earth itself and at the potential expense of the very possibility of life on the planet.

In fact, of course, it is the other way around: the true desire of capitalism is not an end to hunger and biodiversity loss but rather a perpetual state of global crisis to justify further capital accumulation and exploitation.⁴ In a prescient 1921 fragment, one hundred years before the release of *Don't Look Up*, Walter Benjamin argued that capitalism should be regarded not as merely a secularization of Protestant morality but rather as a religious phenomenon in its own right, albeit one that aims not at absolution or redemption but rather at producing and maximizing guilt [*Schuld*, also: debt]: "The nature of the religious movement which is capitalism entails endurance right to the end, to the point where God, too, finally takes on the entire burden of guilt [*Schuld*], to the point where the universe has been taken over by that despair which is actually its secret *hope*."⁵ In this system, there can be no hope of redemption, since there is nothing outside it that might redeem the debt. Not even the boundaries of the planet itself can set a limit. Its only hope is for a universal state of total despair. Hence, as Giorgio Agamben writes, "[p]recisely because it strives with all its might not

³ Adam McKay, dir. *Don't Look Up* (Netflix 2021) [1:13:16–1:13:39].

⁴ I have explored this in greater detail in my article, "Das eigentliche Problem vom Menschen': Debt, (Ac)countability, and the Financialization of Wildlife Conservation," *The Germanic Review: Literature, Culture, Theory* 96, no. 2 (2021): 108–123.

⁵ Walter Benjamin, "Capitalism as Religion," trans. Rodney Livingstone, in *Selected Writings, Volume 1: 1913–1926*, ed. Marcus Bullock and Michael W. Jennings (Cambridge, MA: Belknap Press of Harvard University Press, 1996), 289.

toward redemption but toward guilt, not toward hope but toward despair, capitalism as religion does not aim at the transformation of the world but at its destruction.”⁶

In recent decades, in tandem with the growing neoliberalization of global economies, even efforts to *conserve* nature increasingly obey the logic of accumulation and exploitation. As the alliance of conservation and capitalism has moved into the mainstream, the commodification of life itself has explicitly come to be seen and “promoted as the solution to, rather than the cause of, environmental problems.”⁷ This development goes hand-in-hand with the redefinition of nature as a provider of “ecosystem services” whose value can be measured in economic terms. When ecological economist Robert Costanza and colleagues proposed the term in 1997, the aim was to draw attention to the systematic exclusion or misrepresentation of environmental factors in economic policy decisions, and to give nature a “seat at the table,” as it were, when such decisions are made by providing an objective measure of value against which to assess the cost/benefit of economic development.⁸ Since then, this conception has rapidly given rise to “an optimistic embrace of the financial returns that might accrue if this ‘value’ of environmental externalities could be priced and traded.”⁹ That is to say, even if the redefinition of ecosystems and environmental processes as “services” may ensure their visibility and legibility within a global system that reads everything in financial terms, at the same time, this also serves only to reconfirm the neoliberal law of generalized exchange relations, the conviction that every aspect of life must obey the laws of the market and be subject to cost/benefit analysis.¹⁰ In the words of Kathleen McAfee, this system “offers to nature the opportunity to earn its own right to survive in a world market economy.”¹¹

⁶ Giorgio Agamben, “In Praise of Profanation,” in *Profanations*, trans. Jeff Fort (New York: Zone Books, 2007), 80.

⁷ Jamie Lorimer, *Wildlife in the Anthropocene: Conservation after Nature* (Minneapolis: University of Minnesota Press, 2015), 142.

⁸ See Robert Costanza, Ralph d’Arge, Rudolf de Groot et al., “The Value of the World’s Ecosystem Services and Natural Capital,” *Nature* 387 (1997): 253–260.

⁹ Sian Sullivan, “Banking Nature? The Spectacular Financialisation of Environmental Conservation,” *Antipode* 45.1 (2013), 201.

¹⁰ See Ralph Chami, Thomas Cosimano, Connel Fullenkamp, and Sena Oztosun, “Nature’s Solution to Climate Change,” *Finance & Development* 56.4 (December 2019): 34.

¹¹ Kathleen McAfee, “Selling Nature to Save It? Biodiversity and Green Developmentalism,” *Environment and*

Perhaps the most striking recent example of this logic is a study published in the IMF-run journal *Finance & Development* in December of 2019, entitled “Nature’s Solution to Climate Change,” which opens with the claim that “when it comes to saving the planet, one whale is worth thousands of trees.” The authors calculate that the average whale “sequesters 33 tons of CO₂” whereas a tree “absorbs only up to 48 pounds of CO₂ a year.” The problem, as the authors put it, is that whales are a “textbook public good,” and hence victims of *the tragedy of the commons*, and hence the best way to save the whales, and to save the planet, therefore, is to privatize them. Apparently it would only cost about \$13 per person per year to “subsidize these whales’ CO₂ sequestration efforts.” Having figured out how much these whales are “worth,” the only challenge is to determine how to distribute the financial burden of paying these whales for their “ecosystem services” so that they may save the planet on our behalf. The whales’ “right to survive” thus hinges entirely on the value *to humans* of their ecosystem services, pitting them against the rainforest in a sort of carbon sequestration death match.

As the example of Psyche shows, this universalization of exchange relations and market forces—what Joseph Vogl calls the liberal capitalist *oikodicy*, “a theodicy of the economic universe”¹²—is not limited by the boundaries of planet earth. And while there is no mention of a financial incentive for the Psyche mission on the official website (<https://psyche.asu.edu/>), the detail that NASA’s Psyche spacecraft will be launched into space aboard one of Elon Musk’s SpaceX “Falcon Heavy” rockets suggests that the dream of securing and extracting the asteroid’s vast monetary value is also an important factor.

Psyche, whose name in Greek [Ψυχή] means both “soul” and “butterfly,” is herself a *figure of transformation*, of metamorphosis. In French, *psyché* also means “mirror,” specifically a free-standing, two-sided, full-length mirror.¹³ Thus, she is also a figure of reflection, of speculation and specularization. When we look through the lens of the Hubble Space Telescope, are we not

Planning D: Society and Space 17.2 (1999), 134.

¹² Joseph Vogl, *The Specter of Capital*, trans. Joachim Redner and Robert Savage (Sanford, CA: Stanford University Press, 2015), 16 & passim.

¹³ Cf. Jacques Derrida, “Psyche: Invention of the Other,” trans. Catherine Porter, in *Psyche: Inventions of the Other, Volume I*, ed. Peggy Kamuf and Elizabeth Rottenberg (Stanford, CA: Stanford University Press, 2007), 18.

also looking at ourselves? The asteroid shows us a vision of the Earth as a failed planet—a *terra critica* in the most barren sense, stripped down to its metallic core as a standing reserve for resource extraction, but devoid of life, of meaning, of hope.

But any reflection glimpsed across the curvature of space is also an *inflection*. How might Psyche allow us to see our world differently? To bend or turn away from the cult of universal guilt and deviate from the “absolute loneliness” of our planetary trajectory through the “house of despair”?¹⁴ What alternatives to Benjamin’s “strong theory” of capitalism, and the apparent inevitability of despair it posits, might we perhaps glimpse? As a figure of hope and transformation, can she help us to think beyond the apocalyptic cupidity of capitalism as religion.

¹⁴ Benjamin, “Capitalism as Religion,” 289.