

## Object-Oriented Ontology and Its Critics

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# How Dumb Are Big Dumb Objects? OOO, Science Fiction, and Scale

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**Abstract:** This article considers the potential intersections of object-oriented ontology and science fiction studies by focusing on a particular type of science-fictional artifact, the category of ‘Big Dumb Objects.’ Big Dumb Objects is a terminology used—often quite playfully—to describe things or structures that are simultaneously massive in size and enigmatic in purpose: they stretch the imagination through both the technical aspects of their construction and the obscurity of their purpose. First used to designate the subjects of several science fiction novels written in the 1970s, Big Dumb Objects (often called BDOs) have been understood in terms of science fiction’s enduring interest in the technological sublime and the transcendental. While object-oriented ontology has often turned to science fiction and weird fiction for inspiration in rethinking the possibilities inherent in things and their relations, it has not considered the implications of BDOs for a theory of the object more broadly. The goal of this article is to consider how extreme size and representations of scale in science fiction can help expand an understanding of the object along lines that are similar to those pursued by object-oriented ontology, especially Timothy Morton’s notion of hyperobjects.

**Keywords:** science fiction, object-oriented ontology, Big Dumb Objects, megastructure, literary theory, hyperobjects, Arthur C. Clarke, Larry Niven, Dyson Sphere, Timothy Morton

*Have you reached the point of vertigo? These structures are hard to hold in your head. They’re so flipping big.—Larry Niven<sup>1</sup>*

## 1 Introduction

Where do very large objects—ones the size of planets, the size of suns, the size of whole galaxies—fit into object-oriented ontology (OOO)? Given OOO’s dedication to a ‘flat ontology,’ which “democratizes being” and asserts that objects at all scales are equally real,<sup>2</sup> the answer would seem obvious: very large objects are just as actual as individual microscopic particles and vastly dispersed amorphous concepts. In the history of philosophy and literature, very large objects have often been associated with the Kantian sublime (and thus with subject-centered modes of perception), or else with the existence of ontologically privileged ‘master-objects’ (like the ‘world’). As such, the largeness of very large objects often seems to associate them with philosophical traditions that OOO has sought to critique. However, authors such as Timothy Morton have sought to think with very large objects precisely for the ways that they enable us to move beyond both narratives of master-objects and divisions between subjectivity and objecthood. Morton theorizes a class of objects he calls “hyperobjects,” objects that are “massively distributed in time and space in ways

<sup>1</sup> Niven, “Bigger,” 122.

<sup>2</sup> Bryant, *Democracy*, 279-280.

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that baffle humans and make interacting with them fascinating, disturbing, problematic, and wondrous.”<sup>3</sup> Morton argues that engaging with hyperobjects—entities like global warming, black holes, and the Florida Everglades—allows philosophy to both grapple with the undeniable agency of objects and account for forms of experience after the end of any meaningful phenomenological horizon like ‘the world.’<sup>4</sup>

The purpose of the present article is to analyze a slightly different account of very large objects, objects that appear as a recognizable recurring trope in science fiction literature. These objects, known in the field of science fiction studies as “Big Dumb Objects” (a phrase often shortened to its acronym, BDO), bear a notable resemblance to Morton’s hyperobjects. Like hyperobjects, BDOs are generally not infinite in their magnitude or duration, but are instead instances of “very large finitude.”<sup>5</sup> Their radical scale, however, makes them compellingly alien to the humans who encounter them, and their strangeness highlights the often contradictory agency of things upon themselves and their surroundings. My analysis in this article aims to suggest some of the ways that these kinds of entities can productively enrich philosophical models of objects and their relations, tracing several different iterations of BDOs in the history of modern science fiction and considering how these appearances might prove illuminating for object-oriented philosophical endeavors.

The term ‘Big Dumb Object’ was first used by critic Roz Kaveney in a 1981 article in the journal *Foundation*, in reference to the creations of author Larry Niven, and specifically to his Ringworld, a massive habitable ring constructed in rotation around a star.<sup>6</sup> Over a decade later, in 1993, the term became a real part of science fiction’s academic discourse when literary scholar Peter Nicholls included the term in the second edition of the *Encyclopedia of Science Fiction*. Nicholls explains that he initially included the concept as a kind of joke:

I would pretend that a phrase that I’d always liked, originated by ... Kaveney but not in general use, was actually a known critical term. I would write an entry called “Big Dumb Objects” in a poker-faced style, suggesting an even more absurd critical term to be used in its place, “megalotropic sf.” But the joke was on me, because as I came to write, I realized that the subject—which was vast, enigmatic alien artifacts ...—was not only generally interesting, but at the heart of what attracted people to science fiction.<sup>7</sup>

For indeed, the category of the BDO was applicable not only to Larry Niven’s *Ringworld* (1970), but also to whole collection of structures and vessels, ranging from the monolith in Arthur C. Clarke and Stanley Kubrick’s *2001: A Space Odyssey* (1968), to the celestial cylinder Rama in Clarke’s *Rendezvous with Rama* (1973), the Dyson Sphere in Bob Shaw’s *Orbitsville* (1975), the Stone in Greg Bear’s *Eon* (1985), the mysterious monuments from the future in Robert Charles Wilson’s *The Chronoliths* (2001), the Shellworlds of Iain M. Banks’ *Matter* (2008), the various artifacts populating Charles Sheffield’s *Heritage* universe, and the generation ship known as the Whorl in Gene Wolfe’s *Book of the Long Sun* series, to name just a few examples.

More recently the terminology of the BDO has waned in popularity; the newest edition of the *Encyclopedia of Science Fiction* (now an online resource<sup>8</sup>) replaces the term with “macrostructure,” a word that—as Fred Scharmen notes—highlights the architectural associations of the concept, rather than its ‘object’ character.<sup>9</sup> In this article, I want to return to the category of the BDO as a way of understanding objects: the ways they

<sup>3</sup> Morton, *Hyperobjects*, 58.

<sup>4</sup> *Ibid.*, 3, 95.

<sup>5</sup> *Ibid.*, 60. This differentiation separates hyperobjects and BDOs alike from certain iterations of the Kantian sublime—with which the latter are frequently associated—which is precisely interested in the overwhelming character of the infinitely massive.

<sup>6</sup> Kaveney, “Science Fiction,” 25-26.

<sup>7</sup> Nicholls, “Cosmic Enigmas,” 13. In the *Encyclopedia*, Nicholls’ classic definition described BDOs as things that “have normally been built by a mysterious, now-disappeared race of ALIEN intellectual giants, and humans can only guess at their purpose, though the very fact of being confronted by such artefacts [sic] regularly modifies their mental programming and brings them that much closer to a CONCEPTUAL BREAKTHROUGH into a more transcendent state of intellectual awareness (see also SENSE OF WONDER).” See Nicholls, “Big Dumb Objects,” 118-119.

<sup>8</sup> See <http://www.sf-encyclopedia.com> (accessed May 14, 2019).

<sup>9</sup> Scharmen, “What Is,” 182.

compel us, the ways they relate to each other, and their peculiar inexhaustibility. Science fiction has often served as an inspiration for object-oriented philosophies, although explicit engagements with the genre have often occurred in relation to the neighboring category of ‘weird fiction’ (and particularly the work of H.P. Lovecraft).<sup>10</sup> However, the ways that OOO might enrich our understanding of BDOs, and the ways that BDOs might raise important questions for OOO, remain unexplored.<sup>11</sup> Here, I suggest four primary ways that BDOs help us to think objects more broadly. First, the BDO, despite its frequently technical complexity, is rarely reducible to its component parts. In fact, the opposite is quite often the case: the ‘parts’ turn out to be not only illogically related to the BDO, but sometimes to be even ‘bigger’ than it. Second, the BDO forces us to recognize the asymmetry of encounter between different objects. Third, BDOs can show us the withdrawal of objects from themselves, the way that the object can never be fully self-present even to (or for) itself. Finally, because BDOs exist on timescales much beyond those of human civilization in its contemporary manifestations, and because they propose habitable environments that frequently exceed the boundaries of a single planet, they can help us to see beyond the phenomenological horizon of ‘the world,’ in much the same way that Morton argues hyperobjects do.

This article considers some of the major instances of BDOs in science fiction literature (leaving film mostly aside<sup>12</sup>), considering how such objects are imagined and the kinds of speculative futures they seem to enable. The title of this article, with its question about the ‘dumbness’ of the BDO, is of course partially ironic: obviously BDOs are not dumb in the sense of being trivial or uninteresting. Rather, the dumbness of BDOs is ultimately a characteristic intimately related to both their mysterious allure and the reactions they elicit from fictional protagonists. As Fred Scharmen notes, the epithet “dumb” refers not to an absence of “embodied intelligence” in the BDO, but to the mystery surrounding the origins, uses, and meanings of the objects in question.<sup>13</sup> Protagonists that encounter BDOs in science fiction stories are dumbfounded not only by their extreme size, but also frequently by the inexplicability of their function and their relationship to existing models of space and time.<sup>14</sup>

This article occupies a middle position between science fiction studies, literary criticism, and philosophical investigation. Its aim is neither to narrow the interpretation of works of science fiction literature by aligning them with a rigorous philosophical framework, nor is it to propose a new version of object-oriented thought based upon a particular literary trope. Rather, its goal is an eminently more modest one, but one that follows the spirit of both OOO and recent speculative realisms more broadly: to see where thinking with Big Dumb Objects can take us. If BDOs are really the sources of a bemused wonder on the part of both their fictional investigators and readers of science fiction, they merit serious thought in order to see just how far outside (or inside, as the case may be) commonly held frameworks of the object’s being

**10** Graham Harman’s *Weird Realism: Lovecraft and Philosophy* is the paradigmatic examination of the weird in fiction as it relates to philosophy.

**11** Although engagements between OOO and science fictional narratives of large mysterious objects are lacking, there has been some important consideration of the way the two intersect. It has occurred largely, however, under the umbrella of speculative realism, rather than OOO. Brian Willems’ important study, *Speculative Realism and Science Fiction*, contains a short excursus on the BDO (154-155). Willems’ account is helpful in framing the BDO as an example of cognitively estranging newness in science fiction narratives (which I discuss below), and for raising questions about how these kinds of objects might matter philosophically. Ultimately, however, Willems’ study does not aim specifically at a reading of science fiction’s objects, and thus his discussion of the matter is quite brief. Other speculative realist engagements with science fiction, such as Steven Shaviro’s *Discognition* or Quentin Meillassoux’s *Science Fiction and Extro-Science Fiction*, are even less concerned with the particular objects of science fictional stories as objects.

**12** In his 1993 *Encyclopedia of Science Fiction* entry, Nicholls already notes the difficulty of treating the BDO in film: “The difficulty is one of scale: the screen itself is not huge, so tiny humans have to be superimposed on BDOs in order to create the apparent enormity through contrast.” See Nicholls, “Big Dumb Objects,” 119.

**13** Scharmen, “What Is,” 180.

**14** I return to this point below, but it is worth noting here that BDOs often appear in science fiction narratives as ‘broken tools,’ to use the Heideggerian framework offered by Graham Harman in his discussion of object-oriented philosophy. (See Harman, *Quadruple*, 36-39, 42-44.) In other words, BDOs are encountered as objects that appear to be serving no discernible function, or else whose functions seem oddly mismatched to other aspects of their being and relations. In this sense, they immediately draw attentions to the being of objects beyond systems of relations or use, since it is clear that they exist, but unclear to what they relate or how they might be pragmatically exploited by other beings.

they can take us.<sup>15</sup> As such, this article allows itself to be led first of all by science fiction stories of BDOs, allowing these texts (and more importantly their objects) to establish a series of ‘stopping points’ where the convergence of object-oriented philosophy and science fictional imaginary overlap.

## 2 Science Fiction’s Artifacts and Referents

To think about science fictional objects, we must first think about what science fiction is. Here, it is not necessary to offer a rigorous definition of the genre, but it is nonetheless worth considering the way science fiction has conceptualized itself and its objects. The most classic definition of science fiction is that offered by Darko Suvin, who called it a “literature of cognitive estrangement.”<sup>16</sup> That is, science fiction’s “necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and [its] main formal device is an imaginative framework alternative to the author’s empirical environment.”<sup>17</sup> That is, it attempts to carefully and realistically describe (or make available to cognition) objects that clearly do not and cannot exist (creating a sensation of estrangement, a concept Suvin derives from Brecht’s ‘distancing effect’ and from Russian formalist philosophy).<sup>18</sup> While Suvin’s theory has drawn a great deal of criticism over the decades since it was first introduced, it remains one of the most influential attempts to delineate the disparate works of writing that all seem to belong to the genre.<sup>19</sup> Of note is the way that Suvin’s definition is more interested in examining how science fiction produces certain effects in the reader: it is, ultimately, a ‘subject’-focused model, one that is primarily interested in how a subject (‘cognitively estranged’ from a particular object or set of objects) experiences the world (and new sets of possibilities).

Suvin’s formalist approach aims at a definition of genre in a broad sense, but other scholars have aimed to elucidate science fiction instead based on the kinds of objects that frequently appear in its texts. The work of scholar Gary Wolfe bears mention in this context, and particularly his classic article “The Artifact as Icon in Science Fiction.” Wolfe takes a traditional iconographic approach, attending to the persistent appearance of artifacts (which he defines as “manufactured object[s] embedding evidence of some specific (usually remote) time and place, and invested with some indeterminate value”<sup>20</sup>). Wolfe traces the centrality of the artifact from early manifestations of science fiction such as H. Rider Haggard and H. P. Lovecraft through more recent examples, including the BDOs of authors like Niven (Ringworld), Shaw (Orbitsville) and Clarke (Rama).<sup>21</sup> According to Wolfe, genres of fantastic literature (including science fiction, fantasy, and horror) tend to treat artifacts in a way that reflects the most fundamental preconceptions of that genre: for example, artifacts in horror stories validate paranoia, while artifacts in so-called ‘hard’ science fiction (science fiction that aims at scientifically accurate description and plausibility) will ultimately be amenable to objective, rigorous analysis.<sup>22</sup> The BDO, however, as a particular type of artifact, seems to defy this pattern: despite the fact that BDOs frequently appear in hard science fiction, they often nonetheless retain an aura of inscrutability that belies the belief that all objects are susceptible to scientific understanding. In

<sup>15</sup> As Ian Bogost puts it, in modern Western thought “things are usually taken either as the aggregation of ever smaller bits (scientific naturalism) or as constructions of human behavior and society (social relativism).” (See Bogost, *Alien*, 6.) In this article I suggest that literature focused on BDOs often undoes both of these conceptions, and thus there is a productive space of convergence to be explored between this branch of science fiction and OOO, which likewise aims to move beyond these twin conceptions.

<sup>16</sup> Suvin, *Metamorphoses*, 4.

<sup>17</sup> *Ibid.*, 7-8.

<sup>18</sup> Renault, “Science Fiction,” 114. Suvin’s definition of science fiction already suggests the rather rich common ground of counterfactual investigation shared by the genre and OOO.

<sup>19</sup> Suvin is primarily interested in texts and, with the exception of film, the study of science fiction remains primarily focused on novels, short stories, and sometimes poetry, at the expense of a serious consideration of other media. However, recent scholarship is gradually continuing to expand the media focus of the field, and the *Oxford Handbook of Science Fiction* (edited by Rob Latham) contains entries on science fiction and architecture, digital art, performance art, and music, to name just a few examples.

<sup>20</sup> Wolfe, “Artifact,” 52.

<sup>21</sup> *Ibid.*, 64-65.

<sup>22</sup> *Ibid.*, 68.

other words, scientific plausibility still does not dull the mystery of BDOs for the protagonists of novels such as *Ringworld* or *Rendezvous with Rama*.

Wolfe's iconographic analysis of science fiction texts, focused on the recurring importance of artifacts, is not really intended as a revision of Suvin's theory; rather it focuses on a different level of investigation. There are, however, recent attempts to rework the very definition of the science fiction genre in order to produce what we might call a more 'object-oriented' version of Suvin's model of cognitive estrangement. Recently, Seo-Young Chu has produced a new "science-fictional theory of mimesis" that draws on Suvin's writings, but makes a crucial shift in emphasis.<sup>23</sup> Chu locates cognitive estrangement not in science fiction's precise formal devices or its effects on its readers, but rather "in the object or phenomenon that the [science fiction] text seeks accurately to represent."<sup>24</sup> She places emphasis instead on the myriad kinds of "cognitively estranging referents" that science fiction has treated throughout its history. Chu characterizes these objects of representation as "[n]either totally knowable nor totally unknowable."<sup>25</sup> However, these referents admit of lyrical modes of representation that nonetheless stretch the bounds of mimesis and human thought; the sublime, the virtual, and the traumatic are some of the examples upon which Chu focuses her discussion. Chu places science fiction on a continuum with realism, associating realism with what she calls "low-intensity" mimesis (focused on referents that are "readily susceptible" to representation) and science fiction with "high-intensity" mimesis (focused on referents that are not easily represented).<sup>26</sup> As with Suvin's theory, I am not concerned here to support or refute Chu's model, but simply to indicate the way it reflects a shift in thinking towards the objects (in the broadest possible sense—from concepts like the virtual to things like gas giants) of the genre.

Chu's theory is also relevant because it raises the issue of mimesis. As Graham Harman has noted, the notion of mimesis (long out of favor in discussions of the arts, but recently resurgent in theories like the one offered by Chu) is important for understanding encounters between objects. Harman argues that mimesis is essential to understanding artistic creation (including works of literature) not because art "produc[es] imitation things that copy natural things, but [because] it imitates in the sense that actors imitate rocks, trees, Jim Morrison, or Nixon."<sup>27</sup> Of course, Chu's specific characterization of science fictional mimesis is not posited from the same philosophical ground as Harman's but it is possible to see an important affinity between Harman's mimesis (which emerges because 'real' objects are absent, and thus readers or viewers must project themselves performatively into the roles of those real, withdrawn things) and Chu's science fictional mimesis (which aims to make available to the imagination objects that *cannot* be present but which literature nonetheless aims to represent in as true and emotionally rich a manner as possible). In short, we might say that both science fiction<sup>28</sup> and OOO are motivated by the realization that 'real' objects are beyond immediate cognitive or embodied access, but that the existence of objects nonetheless involves numerous mimetic encounters in which sensuous objects translate each other and their qualities in innumerable ways.

The BDO, as an object of 'high intensity' science fictional mimesis, becomes a particularly revealing example in this context: it is often so large (and/or so distant) that it is clearly impossible to 'encounter' as a unified whole. At the same time, its component parts and surfaces (often portals and points of access) themselves appear as strangely incomplete translations of the BDO as a whole: their functions are strange, or out of touch with what the whole appears to be and do. Entering the BDO often involves a certain dance of embodied mimesis—matching the spin that generates its gravity with a spacecraft in order to land on it, for example. But at the most general level, a mimetic, object-oriented approach to science fiction finds in BDOs paradigmatic examples of the 'weirdness' of objects, and especially of the ways that weirdness can expand to truly mind-boggling proportions, enveloping all manner of objects that seem to belong to the 'outside.'

<sup>23</sup> Chu, *Androids*, 2.

<sup>24</sup> *Ibid.*, 5.

<sup>25</sup> *Ibid.*, 7.

<sup>26</sup> *Ibid.*, 7-8.

<sup>27</sup> Harman, "Materialism," 108.

<sup>28</sup> At least, Chu's more object-oriented conception of it.

### 3 The Dyson Sphere and its Variants

One of the most iconic forms of the BDO is the Dyson Sphere, a type of megastructure constructed around a star for the purpose of harnessing its energy. This notion first appears in the science fiction novel *Star Maker* (1937) by Olaf Stapledon. The novel stretches dizzyingly across the evolution of entire celestial spheres, galaxies, and even universes, depicting the whole cosmos as a kind of vital entity, one constantly rearranging itself into an intelligent “mesh” at a higher and higher scale and level of complexity. At one point in the narrative, a sentient galaxy restructures itself and “beg[ins] to avail itself of the energies of its stars upon a scale hitherto unimagined. Not only was every solar system now surrounded by a gauze of light traps, which focused the escaping solar energy for intelligent use, so that the whole galaxy was dimmed, but many stars that were not suited to be suns were disintegrated....”<sup>29</sup> Later, in 1960, the concept was given its name and its status as a real engineering possibility when the theoretical physicist Freeman Dyson published an article in *Science* describing the notion of “an artificial biosphere which completely surrounds its parent star.”<sup>30</sup> From this description, the term ‘Dyson Sphere’ became common, and the concept soon began to appear in science fiction stories.

It bears mention that Dyson’s article in *Science* was not about humanity’s construction of a Dyson Sphere (although of course it raised that future possibility), but rather advocated the search for Dyson Spheres as an important part of the search for extraterrestrial life. Specifically, the article proposed that scans for infrared radiation (emitted by the shell of the sphere) constituted a logical addition to proposed scans for interstellar radio communications as ways of detecting intelligent civilizations elsewhere in the galaxy. The Dyson Sphere itself would be a “dark object,” but it would still emit a form of radiation detectable on Earth.<sup>31</sup> This approach is worth noting because it foregrounds the sense in which the Dyson Sphere entered the popular imagination (as well as the scientific one) as a kind of mystery with which humans could only ever (at least at first) have indirect contact, by means of interpreting patterns of radiation. The series of disjunctures (between the sun within the sphere, the sphere as a ‘dark object,’ and the radiation emitted by the sphere) already indicate the multiple modes of the object’s existence (modes that we might characterize as elements of the object’s withdrawal).

Since its introduction as a scientific possibility in Freeman Dyson’s article, Dyson Spheres have become an element of numerous science fiction stories. However, one of the most popular examples of the phenomenon is in fact a variant: the Dyson Ring, which is the BDO at the center of Niven’s *Ringworld*. Here, I want to approach the Dyson Sphere (and Ring) not directly through Niven’s novel, but rather through an essay entitled “Bigger than Worlds,” which Niven published in the science fiction magazine *Analog* in 1974. In “Bigger than Worlds” (a title that already suggests a certain resonance with OOO), Niven presents a kind of genealogy of the most common strain of the BDO (although he doesn’t call it that), tracing the trope from multi-generation ships, through flying cities, hollow planetoids, and on to Dyson Spheres and even larger encompassing structures. Niven is a quintessentially ‘hard’ science fiction author, particularly in this text, and his genealogy is structured around the possibility that these objects really could exist. There is a paradoxical quality to Niven’s writing that indicates the allure of BDOs, an allure that fades away the more they seem to be simply far-fetched fantasies. In other words, the BDO exercises the most wonderment when it appears as something that is at once unimaginable for our current historical context and yet treated as a scientifically plausible fact. This is what makes BDOs, to return briefly to Seo-Young Chu’s terms, ideal ‘cognitively estranging referents’ for science fiction’s ‘high-intensity’ mimesis. They suggest themselves for the accurate description of hard science fiction—with its interest in describing objects that must function according to real laws of cause and effect—while at the same time they are “hard to hold in your head” (as Niven puts it).<sup>32</sup>

Niven describes Dyson Spheres and then the Dyson Ring (a ring with a radius of 90 million miles, positioned with a star at its center) of his *Ringworld* novel, before moving on to other objects. He imagines

<sup>29</sup> Stapledon, *Star Maker*, 380.

<sup>30</sup> Dyson, “Search,” 1667.

<sup>31</sup> *Ibid.*, 1667.

<sup>32</sup> Niven, “Bigger,” 122.

a mobile Ringworld, one that uses the star at its center to power an engine that will fling it through space.<sup>33</sup> He describes a disc so massive that its radius is “about that of the orbit of Mars or Jupiter.”<sup>34</sup> Beyond the disc is a massive and endlessly looping strand of “cosmic macaroni”: a world constructed on the inside of an endless tube, looped around a sun for energy. And beyond that: the “Megasphere,” a Dyson Sphere “with the heart of a galaxy at its center.” The surface area of the Megasphere is “tens of millions of light years,” and its atmosphere extends outward for “scores of light years.”<sup>35</sup> The construction of such massive-scale objects begets further possibilities: the creation of further elevated rings that would stay aloft from their own spin for “many times the life span of any known civilization.”<sup>36</sup>

“Bigger than Worlds” is a truly impressive essay. Freed of any commitment to narrative, Niven allows ideas to simply spiral outward, strung together with an ongoing (and often implausible) commentary on the scientific possibility of developing these technologies. As Niven reaches larger and larger scales of objects, he also arrives at a transformed version of human existence, what he calls “macro-life.”<sup>37</sup> Of course in one sense, macro-life is a kind of holdover anthropocentrism to the investigation of the BDO: the idea that it will serve primarily as a tool for humankind to produce new ways of living a meaningful existence. But macro-life can also be read as the emergence of a new kind of object. Niven is not really interested in macro-life anthropologically, but rather in the kind of perspectival transformation that must occur when an object like ‘society’ (or ‘the home’) is suddenly as big as a whole planet, a whole solar system, a whole galaxy. Furthermore, what occurs when this object is perpetually in motion (as in the case of the propelled Dyson Ring that can never really come to a stop)? What does it mean for a collective existence on an unparalleled scale to move about through space, to dwarf many of the objects that now seem so large in comparison even to the entire earth? These are the kinds of questions that Niven seeks to raise.

Here again, as mentioned at the outset of this article, we see a kind of convergence (inevitable, perhaps) between BDOs and Timothy Morton’s notion of the hyperobject, those “things that are massively distributed in space and time relative to humans.”<sup>38</sup> For Morton, the most significant aspect of hyperobjects is their coincidence with what he calls “the end of the world”—the sense that “the notion that we are living ‘in’ a world ... no longer applies in any meaningful sense.”<sup>39</sup> The ecological and political circumstances of Niven’s time are of course different from the moment in which we find ourselves today; writing in the 1970s, a decade whose midpoint would see the U.S. and the Soviet Union set aside their differences for the Apollo-Soyuz Test Project, Niven sees the colonization of space as a functional certainty. Morton’s writing, on the other hand, is situated in the era of ecological instability on a scale that is much different than earlier postwar understandings based on the possibility of restoring balance to ‘Nature.’ But at its core, Niven’s vision is one of human society itself transformed into a hyperobject: the very rootedness of humanity in relation to a single planet in unsustainable for him. One must think at a much different scale to confront a very particular ecological problem: that of population explosion, of the need for an ever-expanding *surface* for humans to occupy.

## 4 Beyond Dyson Spheres: Monoliths, Cylinders, Stones, Shells

Although Arthur C. Clarke is often discussed as one of the quintessential authors of BDO science fiction, the objects of his fiction are not actually that large.<sup>40</sup> Or, perhaps more accurately, their largeness does not communicate itself in the same way as the largeness of Dyson Spheres and Dyson Rings. Consider the

<sup>33</sup> Ibid., 125.

<sup>34</sup> Ibid., 123.

<sup>35</sup> Ibid., 124-125.

<sup>36</sup> Ibid., 125.

<sup>37</sup> Ibid., 116.

<sup>38</sup> Morton, *Hyperobjects*, 1.

<sup>39</sup> Ibid., 101.

<sup>40</sup> Peter Nicholls considers the monolith in *2001* and the cylinder in *Rendezvous with Rama* to be BDOs despite their relatively diminutive size. See Nicholls, “Cosmic Enigmas,” 15.

monolith that plays such a central role in Clarke and Kubrick's screenplay for *2001: A Space Odyssey*, and in the novel that Clarke wrote based on the same screenplay.<sup>41</sup> As one of the most paradigmatically mysterious artifacts in the history of science fiction, the monolith certainly seems to belong to the family of BDOs, but it barely compares in terms of bigness. It is, as Clarke describes it, only three times the height of primitive humankind, and as narrow as the span of human arms.<sup>42</sup> Nonetheless, its implacable transparency and foreignness in the landscape conveys a level of conceptual significance belied by its objective size. Much later in the novel, when one of the protagonists, David Bowman, encounters the monolith on the surface of Saturn's moon Japetus, it takes on a much different character. At first appearing as a slab "rearing high above a flat plain," the monolith suddenly open up into "infinite depths." The astronaut Bowman finds himself "looking down into a vertical shaft—a rectangular duct which defie[s] the laws of perspective." The last words he radios to Mission Control, before his transmission is cut off, are "The thing's hollow—it goes on forever—and—oh my God!—it's full of stars!"<sup>43</sup>

Here, the hollowness discussed above (in which the Dyson Sphere contains a sun) becomes even more expansive: the monolith suddenly advances to the level of what Niven called the MegaspHERE, something so large that it might contain multitudes of stars, an entire galaxy. As before, of central interest (from the point of view of ontology, at least) is the way that the BDO never becomes simply a catalogue of its component parts. The monolith, containing a hollowness that goes on forever, populated by possibly infinite suns, is very far from some materialist image of a vast machine, constituted by infinite relations between progressively smaller parts and particles. The BDO steadfastly maintains its autonomy as a discrete object, one that appears to perception as something decidedly different from whatever it contains. Indeed, the endurance of the monolith across time and space is not only what allows the divergent times of Clarke's novel (the prehistoric past and the not-so-remote future) to co-exist plausibly.<sup>44</sup> This endurance, so often a characteristic associated with the monumental, is also resonant with OOO's interest in how objects sustain themselves as recognizable entities (as opposed to endlessly fluctuating forces or flows).<sup>45</sup>

BDOs are also—generally speaking—objects that 'resist appropriation' (as Harman puts it<sup>46</sup>). They either appear as broken<sup>47</sup> or else, in their clear function, they appear nonetheless to escape all networks of use to which humans might put them. This latter is the scenario presented in Arthur C. Clarke's *Rendezvous with Rama*, for example, in which a massive cylinder is discovered hurtling through space. The cylinder at first appears to be impenetrable, a perfectly solid piece of undifferentiated and unreflective black substance, 40 kilometers in diameter, propelled through space by invisible forces.<sup>48</sup> (Although much larger than the monolith, the cylinder is still diminutive in comparison to Dyson Spheres.) Upon further investigation, it is

<sup>41</sup> Here I confine my analysis to the version of the story that Clarke presented in his 1968 novel; the plot of the film differs slightly in terms of the monolith's role.

<sup>42</sup> Clarke, *2001*, 10.

<sup>43</sup> *Ibid.*, 202.

<sup>44</sup> Although I do not aim to explore it in depth here, it is worth noting the affinities between alien artifacts (including BDOs) and philosopher Quentin Meillassoux's notion of "arche-fossils," "materials indicating the existence of an ancestral reality or event; one that is anterior to terrestrial life." (See Meillassoux, *After Finitude*, 26.) Meillassoux even cites the light of star that is older than humankind (but which we can see) as an example of an arche-fossil, suggesting the quite obvious parallel between Meillassoux's ancestry and, for example, Freeman Dyson's description of the search for Dyson Spheres.

<sup>45</sup> Another, much more recent example of science fiction that thematizes the interaction between temporality and the monument as a 'Big Dumb Object' is Robert Charles Wilson's 2001 novel *The Chronoliths*, which explores a scenario in which massive commemorative sculptures suddenly begin to appear in the present, sent from the future. Celebrating military victories set to occur twenty years in the future, the monuments cause widespread destruction upon their sudden appearance, laying waste to cities first across Asia and eventually the globe. As the novel progresses, the continued arrivals of the monuments begin to reshape history, bringing about the conditions that will make the future from which they arrive a certainty. A fascinating consideration of how the (large, though not mind-bogglingly so) object can function to alter time and causality in science fiction, Wilson's novel is much too complex to discuss in full here. I offer an in-depth analysis of *The Chronoliths* in a forthcoming article in the November 2019 issue of *Science Fiction Studies*; see Isto, "In the Valley."

<sup>46</sup> Harman, "Materialism," 102.

<sup>47</sup> Niven's *Ringworld*, Clarke's *Rama*, and Greg Bear's *Stone* (the latter two discussed below) are all examples of BDOs that are first encountered as 'broken' or inoperative entities.

<sup>48</sup> Clarke, *Rendezvous*, 4.

discovered that the strange cylinder—christened Rama—is in fact hollow. A ship is dispatched to land on Rama, and when the crew enters the object, they discover an entire world spreading out across the walls of the cylinder, organized around its central axis of rotation. Within Rama, there are cities and atmosphere, and a great circular ocean wraps around the middle of the inside of the cylinder. The cities of Rama appear abandoned, however; the exploration team can find no sign of the inhabitants of the vessel, but nor can they find any remains, seeming to indicate that Rama is not a ruin.

In fact, as the team continues to investigate, Rama appears to be returning to functionality: first, the ice of the cylindrical sea (frozen as the protagonists enter Rama) begins to melt as the object draws closer to the sun.<sup>49</sup> Then, interior lights suddenly come to life, illuminating the interior of the vessel, acting as its own sun.<sup>50</sup> Weather patterns begin to re-emerge from differentials in temperature. Just as suddenly, robots appear (or ‘biots,’ as they are termed by scientists overseeing the Rama exploration): first, crablike machines that appear designed to dispose of waste, and then larger, 3-legged spiderlike beings that appear to simply be investigating the developments within the cylinder, including the progress of the exploration team.<sup>51</sup> Despite the mysterious appearance of these artificial life-forms, however, the Ramans themselves never surface. When the team attempts to enter one of the buildings in one of the several abandoned cities (buildings that are completely sealed, with no apparent doors or windows), they still find no intelligent inhabitants. Instead, they discover a kind of museum filled with the models for objects that can be, presumably, produced on demand from these models: a whole array of tools, utensils, furniture, and even clothing.<sup>52</sup> Just as this the team makes this discovery, however, Rama inexplicably begins to turn itself off again: the lights go out, and the cylinder begins to accelerate. As the team leaves the vessel, it begins to surround itself in a cocoon of hazy light and places itself in a close orbit around the sun, before rocketing off again into space with incredible speed.<sup>53</sup>

What is so striking about Clarke’s book is the way that Rama continually confounds attempts to be thought in terms of its function. In fact, when it is ‘turned on’—when the sun activates, weather commences, and robots go about their business—the object is still somehow farthest from actually serving any purpose. At first the exploration team assumes that Rama must be reacting to their presence, but as the novel progresses, this seems less likely. The other obvious possibility, that the interior environment is preparing itself for the hidden Ramans to emerge into livable surroundings, is likewise defeated when, at the close of the book, the vessel suddenly turns itself off again and heads for the sun. Rama defeats at every turn the efforts of human interlopers to impose a logical (that is, an anthropocentrically comprehensible) purpose on the vessel (which perhaps is not even a vessel).<sup>54</sup>

A larger BDO—but still one that appears far more modest in size than a Dyson Sphere—is also at the heart of Greg Bear’s 1985 novel *Eon*. *Eon* is, in important ways, indebted to both *2001* and to *Rendezvous with Rama*, as well as to other stories in the genealogy of BDO literature. Similar to *Rendezvous*, Bear’s novel focuses on the exploration of an oblong interstellar object, this time an asteroid approximately three hundred kilometers in length that mysteriously appears in irregular orbit around the Earth. Dubbed ‘the Stone,’ the asteroid is—like Clarke’s Rama—discovered to be hollow, filled with a series of terraformed chambers. The Stone becomes the stage for a continuation of Cold War rivalries, as NATO, Soviet, and Chinese scientists vie for access to the secrets of the object. (It contains, for example, a vast library with

<sup>49</sup> Ibid., 85.

<sup>50</sup> Ibid., 88.

<sup>51</sup> Ibid., 152-154, 176-177.

<sup>52</sup> Ibid., 223-224.

<sup>53</sup> Ibid., 238-240.

<sup>54</sup> It should be noted that Clarke co-authored a trilogy of subsequent Rama novels with engineer and scientist Gentry Lee. The following trilogy (which Clarke had not initially intended to write) takes a very different approach, one that highlights human social and political issues, and follows its protagonists on a great adventure. The contrast between *Rendezvous with Rama* and the three subsequent books highlights precisely the significance of the former book in terms of foregrounding the mysterious qualities of objects. While the later books are much more clearly about society, *Rendezvous* is about the impossibility of humans ever fully understanding or mastering an object that forever wavers on the edge of interpretability. The entire book is primarily devoted to the presentation of an object that will never be ‘solved,’ and although there are important elements of human drama and adventure, they continually take a back seat to the strangeness of Rama itself.

documents referring to an ominous event called ‘the Death.’)<sup>55</sup> As investigations of the Stone continue, it becomes clear that it was built by humans, at some point in the distant future, or perhaps the distant past of an alternative universe.<sup>56</sup> The history of this human civilization is quite similar to Earth’s, but nonetheless as the novel progresses it becomes clear that the Stone’s makers come from another history.

The most striking aspect of the Stone, however, is not its construction by humans from another timeline. The Stone is, impossibly, “longer on the inside than it [is] on the outside.” The last of the seven chambers contained within the Stone extends infinitely into space.<sup>57</sup> This tunnel that continues on, forever, does not only extend through space; it also serves as a nexus of times: along ‘the Way’ (as it is called) there are gateways to thousands of alternate universes, emerging at different points in their pasts and futures.<sup>58</sup> If the monolith in *2001* is something like a pocket galaxy, the Stone contains something much closer to a whole pocket universe, with infinite points of divergence. Of course, the Stone already suggests itself as a verdant ground for counterfactual imagination, for the kinds of speculative endeavor that OOO holds so dear. What could be more mysterious than a thing that is every possible universe, and every possible causal connection between them?

But, in some ways in a much more mundane sense, the Stone is also an apt illustration of (at least portions of) what Graham Harman calls the “fourfold structure” of the object. According to Harman’s model, developed in relation to the earlier philosophies of Heidegger, Husserl, and Leibnitz, it is most helpful to think of objects as a quadripartite structure composed of four elements: a real object, a sensual object, an object’s real qualities, and an object’s sensual qualities.<sup>59</sup> Between each of these different elements of the fourfold (a term Harman adapts from Heidegger), there are different tensions pertaining (such as those a real object and its sensuous qualities).<sup>60</sup> These tensions do not prevent the particular qualities or objects from being real, but they do evidence their perpetual discontinuity. These tensions are evident in the case of the Stone (an asteroid that is discovered to be an alternate universe’s version of Juno, one of the asteroids in our own galaxy’s belt) in *Eon*. Despite the apparent tangibility of the Stone, it is constantly in tension with its qualities (both spatial and temporal): it clearly functions and appears to humankind in ways that cannot be reconciled with its existence as an asteroid (of a certain size, obeying a certain trajectory, etc.). Furthermore, humankind’s sensorial encounter with the Stone is quite clearly with something very different than what we would continue to call the Stone itself, as a ‘real’ entity. Narratively this is accomplished through the disjuncture between the Stone’s interior and exterior, but this disjuncture can be—theoretically speaking—read as a much broader disjuncture between the real object and both the sensual and the real object’s real qualities.

*Eon*, like virtually all BDO stories in science fiction, is primarily a story of encounter, as are *2001* and *Rendezvous with Rama*. These stories also shed light on the ways that objects come into contact with each other (in this case, how humans come into contact with entities like the Stone or the monolith). Specifically, they imaginatively present what Graham Harman calls “the asymmetry of contact.” Harman explains that most “causal or relational contact” between objects is generally considered to be symmetrical: “If a first object touches a second, then supposedly the second cannot avoid touching the first in return.”<sup>61</sup> Against this view, Harman argues that the inverse relation (of the second object to the first) is always a completely different relation, because in the latter case, the second ‘real’ object can only come into contact with the sensual first object (and never the ‘real’ first object that initiated the first relation). Often in a decidedly more lyrical and metaphorical sense, this is precisely what happens in much BDO fiction: human intrepid explorers and scientists can never really grasp the real object of their investigation. At the same time, that object opens up to them or acts on them not as explorers and scientists, but in some other way. This is why, as Peter Nicholls suggested in his classic definition, the BDO is so often tied to a “conceptual

<sup>55</sup> Bear, *Eon*, 98-102.

<sup>56</sup> *Ibid.*, 56.

<sup>57</sup> *Ibid.*, 70. Bear’s novel was followed by a sequel, *Eternity* (1988), and a prequel, *Legacy* (1995), both of which involve the further examination of the history of this infinite tunnel, the Way.

<sup>58</sup> *Ibid.*, 365.

<sup>59</sup> On the fourfold structure see Harman, *Quadruple Object*, 50, 75-81, 95-109.

<sup>60</sup> Harman, *Quadruple Object*, 106-107.

<sup>61</sup> *Ibid.*, 75.

breakthrough.”<sup>62</sup> The ‘conceptual breakthrough,’ I want to suggest, is not just about humans achieving a new stage of consciousness (as in *2001*, for example); it is also about the BDO presenting itself to something other than humans as they ‘really’ exist at the moment of contact.

The height of BDO fiction was undoubtedly—as suggested by Kaveney’s article in which the term was coined—the 1970s (the decade in which Clarke’s *Rama*, Niven’s *Ringworld*, and Bob Shaw’s *Orbitsville* were published). However, the trope has persisted in new and interesting manifestations in more recent science fiction literature. One example is Iain M. Banks’ 2008 novel *Matter*, part of the author’s series of books examining a futuristic civilization known as The Culture. Characterized by socialist ideals and operating in a post-scarcity economy, The Culture is a radically diverse group of aliens, humanoids, and artificial intelligences, whose members often make profound changes to their bodies and identities throughout their lives and careers. *Matter* revolves around one of the most compelling elements of the universe that The Culture occupies: Shellworlds, massive planets built by an ancient (and now extinct) race known as the Veil, nearly a billion years before the events of the novel.<sup>63</sup> The Shellworlds are immediately interesting from the point of view of OOO not only because of their layers, but also because they are paradigmatically ‘broken tools’<sup>64</sup>: they are presumed to be elements of a vast, universe-spanning machine that can no longer function, indeed perhaps never functioned, and they now appear strange in part because of their lack of apparent connectedness to each other.

The Shellworld at the center of *Matter*’s story is called Sursamen. Sursamen is forty-five thousand kilometers in diameter and contains fifteen evenly spaced concentric interior levels surrounding a solid metal core.<sup>65</sup> Much of the action in the novel (which plays out in relation to an intermingling of planetary and intergalactic espionage) involves the inhabitants of Sursamen’s eighth level, a humanoid civilization called the Sarl. While the human and alien protagonists of the novel carry *Matter*’s story forward, Sursamen itself plays a major role in both the narrative and the overall mood of the story. Sursamen, Banks writes, “collected adjectives the way ordinary planets collected moons. It was Arithmetic, it was Mottled, it was Disputed, it was Multiply Inhabited, it was Multi-million-year Safe, and it was Godded.”<sup>66</sup> As different characters navigate upwards and downwards through the levels of the Shellworld, they encounter alien species and permutations of physics that restructure their understanding of their world as both a social and a material reality. In this sense, Sursamen functions like so many other BDOs—and like Morton’s hyperobjects—as a way to signal the productive strangeness of objects for humanity’s grasp on its surroundings.

One major narrative thread in *Matter*—and the one that ultimately leads to the novel’s culminating struggle—involves the gradual uncovering of something buried close to the core of the world, a sleeping WorldGod, apparently from the race of beings who created the Shellworlds, the Veil. Some of the alien races working to excavate this buried entity believe themselves to be its descendants, while others simply seek the territorial advantage it might offer them. When the entity is finally uncovered, however, it reveals itself to be not a sleeping benefactor, but a sleeping adversary: the being is not one of the Veil, but a member of the Iln, a species that dedicated themselves to wiping out the Shellworlds for reasons never known.<sup>67</sup> The final pages of *Matter*—a novel that at first presents itself as a story of gradually developing interplanetary conspiracy—suddenly dissolve into chaos as the ‘heart’ of Sursamen is awakened and sets out to destroy the Shellworld and its inhabitants. More than simply a plot device to confound readers’ expectations, this upheaval in the book’s events presents a compelling model of the schism within objects themselves: what is first assumed to be the essence of the Shellworld in fact reveals itself to be its antithesis and dissolution, a force that begins to disassemble the whole structure set up by the novel.

This sudden devastation also has an effect similar to the catastrophic quality of certain hyperobjects, as characterized by Timothy Morton: like the nuclear blast in the filmic adaptation of J.G. Ballard’s *Empire*

<sup>62</sup> Nicholls, “Big Dumb Objects,” 118.

<sup>63</sup> Banks, *Matter*, 62-63.

<sup>64</sup> For an analysis of objecthood in terms of Heidegger’s ‘tool-being,’ see Harman, *Quadruple Object*, 36-40.

<sup>65</sup> Banks, *Matter*, 63-64.

<sup>66</sup> *Ibid.*, 62.

<sup>67</sup> *Ibid.*, 522, 531.

of the Sun, which Morton reads as “the end of teleology” and thus the end of the world as a horizon “over there,”<sup>68</sup> the destruction of Sursamen at the hands of the entity thought to be its essence has the effect of bringing the future into the present. Specifically, the future that arrives exceeds human interventions, machinations, and constructions of meaning. While Sursamen ultimately survives the destructive force of the awakened IIn, the conclusion of the novel cannot help but cause the reader to contemplate the events that have transpired as a restructuring of paradigms: the Shellworld Sursamen is no longer something that admits of objectification, even on a planetary scale. It is not something that can be mined, nor its secrets uncovered as part of a galactic genealogy. (It is also implied that, for the Sarl, the events of the novel constitute the disappearance of what they once believed was their supreme deity, the WorldGod at the heart of the Shellworld.) This is, like the contact with the Stone in *Eon*, a kind of ‘conceptual breakthrough,’ although not one that allows for the continued refinement of scientific objectification or exploration. Rather, it is the kind of breakthrough that—through the discovery of something that was always already there—presents the need for a radical ontological re-evaluation.

## 5 Conclusion: Bigger Inside than Out

Works like Clarke’s *2001*, Bear’s *Eon*, and Banks’ *Matter* present the reader with Dumb Objects whose Bigness is defined not so much (at least not only) by their exterior size so much as by their interior vastness and complexity. In the case of *2001*’s monolith and *Eon*’s Stone, this vastness is close to infinite. This paradox—that even something whose large size seems relatively graspable by the imagination could contain much more space and time than scientifically possible—also allows us to move back along a scale towards something ‘closer to home,’ quite literally: the domestic. Of course, the BDO itself, as a trope, comes from scaling up the notion of home. This is the work of Niven’s essay “Bigger than Worlds,” discussed above: to move from the home to the city to the globe and beyond, to the largest possible thing that might be considered a home. Indeed, science fiction (in both film and literature) has often considered the particular strangeness of home as a phenomenon.<sup>69</sup> Imagining the home as something bigger inside than it is on the outside—with all the strangeness and contradictions of the BDO, but still familiar and livable—lets us move back to the strangeness of a much more intimate scale of objects.

I want to conclude by considering a particularly compelling example of the ‘bigger inside than outside’ trope, Robert A. Heinlein’s famous short story “—And He Built a Crooked House—,” first published in the February 1941 issue of *Astounding Science Fiction*. Here we are very far afield from the territory of the BDO, or at least so it would seem. But in a way, as I think will become clear below, the house of Heinlein’s short story has a great deal in common with BDOs, and it is OOO’s account of objecthood that allows us to see these similarities. In Heinlein’s story, an aspiring architect named Quintus Teal living in Los Angeles concocts a design for a house based on a four-dimensional form, the tesseract. Teal (who proclaims himself inspired by Picard-Vessiot theory and stereochemistry)<sup>70</sup> finds a willing client, Homer Bailey, but Bailey insists that the permits for such an impossible structure would never be approved. Teal then constructs the house as a tesseract unfolded in its three-dimensional form, but when Bailey and his wife accompany Teal to visit the newly completed structure, it appears to be only “a simple cubical mass, possessing doors and windows, but no other architectural features.”<sup>71</sup> Upon entering the cube, however, Teal, Bailey, and Bailey’s wife discover that there are in fact eight rooms in the house. The building is “a developed tesseract”—a minor earthquake the previous evening had “collapsed” it into its natural four-dimensional shape.<sup>72</sup>

As they explore the house, Teal and the Baileys make several strange discoveries. First, when they attempt to leave the house through what they assume is the front door, they find themselves back in the

<sup>68</sup> Morton, *Hyperobjects*, 94.

<sup>69</sup> On this topic, see Fortin, *Architecture*, 11-13, 30-40.

<sup>70</sup> Heinlein, “Crooked,” 193.

<sup>71</sup> *Ibid.*, 200.

<sup>72</sup> *Ibid.*, 202.

lounge, and they find that some of the windows of the house simply look ‘out’ onto its other rooms.<sup>73</sup> Later, Mrs. Bailey complains of hearing voices, and Teal catches a glimpse of an intruder in the house. However, after chasing him for some time and finding himself unable to catch up to him, he realizes that he is chasing himself: upon entering the house, Teal and the Baileys too have been extrapolated into the fourth dimension.<sup>74</sup> This realization pushes the architect and his clients to search all the more ardently for a path of exit. As they begin opening windows, in hopes of finding one that leads to the outside, they discover that many of them do indeed lead ‘outside’ the house. One inexplicably looks down “from a terrifying height” from a point seemingly just above the tower of the Empire State Building in New York. Another looks out on a pleasant seascape, but one in which the sea is overhead and the sky below. Another looks out on absolute void, having “neither depth nor form ... not even blackness.”<sup>75</sup> Teal and the Baileys’ survey of the windows is interrupted by another minor earthquake, which causes them to leap, panicked, through the nearest window, which ultimately deposits them in the center of Joshua Tree National Park. Upon returning to the site of the house, they find it entirely gone, slipped fully into the fourth dimension.

At very different scales, Heinlein’s short story and BDOs are born from a similar awareness of the need for *more space*. Indeed, Heinlein’s intrepid architect seems even more plausible in today’s Los Angeles, with its skyrocketing property values, than at the time the story was written. Likewise, it is not accidental that Niven, writing 30 years later, imagines a floating extraterrestrial city as “a strip of Los Angeles.”<sup>76</sup> And yet: *more space* does not simply equal more of the *same* space. Quintus Teal imagines a new kind of space, made possible by a new kind of object (specifically, a new kind of home). Teal’s collapsed tesseract foregrounds nearly all of the most compelling aspects of OOO’s model of objects: their recognizably discrete character (what is more ‘object-like’ than a cube?), their retreat from relations, and the impossibility of the (real) object encountering even itself directly. The fracture whereby Teal and his clients find themselves endlessly perceiving themselves beyond their reach in the house, operating within a kind of infinite loop, presents us with a compelling vision not only of the ‘unhomeliness’ of the home as an object, but also of the paradoxical existence of the human being as an object. The space of Teal’s house is more than what can appear to humans, or to itself, and when they occupy it, humans likewise become more than they appear—but without gaining the ability to fully access this newly discovered abundance. This might seem like an eminently pessimistic evaluation of architecture’s ability to create new possibilities for its inhabitants, but it need not be so. Its corollary, as discussed above, is the ‘conceptual breakthrough’ facilitated by the BDO: the asymmetrical relation that heralds not the continuation of the same space, but a new kind of humanity, a ‘hyperobjective’ society whose movement across the stars is full of potentialities.

Just how dumb, then, are Big Dumb Objects? Of course the answer is both ‘not very,’ and ‘absolutely’—if by their dumbness we understand their retreat from relations to other objects. In this sense, the dumbness of BDOs in science fiction is a potent metaphor for the universal being of objects, which always preserve an inaccessible excess that is never exhausted by their interactions with other entities. I have tried to show here the ways that science fiction literature focused on BDOs presents a view of objects that is richly resonant with the interests of OOO, and especially with the trajectory of OOO that pursues the implications and significance of hyperobjects. Perhaps the confluence of these two approaches to the rich mysteriousness of things will both recover BDOs as a serious object of analysis in literary criticism, and expand OOO’s interest in speculative fiction to include that branch of science fiction concerned with imagining the implications of the very, very big.<sup>77</sup>

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<sup>73</sup> Ibid., 204.

<sup>74</sup> Ibid., 208.

<sup>75</sup> Ibid., 210.

<sup>76</sup> Niven, “Bigger,” 114.

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