

Things You Wouldn't Think to Look For in One Place: A Note on an All-Too-Brief Example on Life and Matter in *Abhidharmakośabhāṣyam* A.D. 3.14c

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This brief essay explores an example introduced by Vasubandhu in the third chapter of his *Treasury of Metaphysics* (*Abhidharmakośabhāṣyam*). The example involves the report that one can, apparently, find in molten metal an environment conducive to the generation of a species of small-scaled critters, which example, however otherwise bizarre to us (and to a generation of scholars who have passed over it in silence), Vasubandhu appears to believe well known and capable of supporting striking generalizations about life and matter. I offer three sorts of comments on this example and three varieties of reasons for taking it more seriously than we have. Firstly, considering the textual provenance of the example forces us to acknowledge the possibility of a much richer textual world to which Vasubandhu had access, one possibly stretching from Peshawar to Rome. Following the philosophical implications of the example in turn allows us to trace with Vasubandhu an intriguing complication in the concepts of life and matter and how they interrelate. Lastly, the methodological implications of taking such examples seriously direct us to a distinctive target of historical and philosophical exploration: the historically contingent contours for what is, and what is not, possible.

Not known, because not looked for
But heard, half-heard, in the stillness
Between two waves of the sea.
--T. S. Eliot, *Little Gidding*

“When reading the works of an important thinker,” T. S. Kuhn once advised, “look first for the apparent absurdities in the text and ask yourself how a sensible person could have written them. When you find an answer . . . when these passages make sense, then you find that the more central passages, ones you previously thought you understand, have changed their meaning.”¹ Such advice would have us turn away from where the bulk of contemporary Anglophone philosophical engagement with the history of philosophy in South Asia has directed us to look. After all, for the most part philosophical engagement with the endlessly rewarding world of premodern South Asian philosophy has effectively followed the advice of those like H. A. Pritchard who would have us exclude anything artificial or unconvincing when reading philosophers from the past in order to concentrate on “the most important parts.”² That phrase, “the most important parts,” of course, being one with an almost indexical sense, tending to pick out whatever the speaker happens to value, or something the speaker just might happen to encounter in the most temporally proximate issue of the most valued journal in the field.

Though I do think there are reasons recommending such engagement—not least the fact of the continuing injustice perpetrated by the willful unknowing of the history of philosophy in

1. Kuhn 1977: xii.

2. Quoted in Frankfurt 1970 [2008]: 10.

South Asia and the disinclination to even acknowledge that there is anything worth getting to know in the first place—I shall here court idiosyncrasy if not perversity by following Kuhn’s recommendation and not Pritchard’s, with the caveat that what prompts my re-reading of a well-known work is not so much something unconvincing or artificial, or even absurd, but something *prima facie* difficult to place.

Still, I fully recognize that I am in danger of directing your attention to something bearing a family resemblance to one of the “six hundred . . . needlesse points” the English divine William Sclater in the seventeenth century libelously (if rather wittily) charged the schoolmen with occupying themselves, questions such as whether angels “did occupie a place; and so, whether many might be in one place at one time; and how many might sit on a Needles point.”³ For though this brief essay will conclude by recommending an orientation or, perhaps, a methodological sensibility and style I believe to be useful to students of the history of philosophy in South Asia, my sights are constrained by a somewhat myopic focus, one having to do with collocation no less.

We shall here consider what we can make of a single example provided by Vasubandhu (who flourished in the last decades of the fourth and the early decades of the fifth century C.E.) in his magisterial and influential *Treasury of Metaphysics* (*Abhidharmakośa*). The example involves the report that one can, apparently, find in molten metal an environment conducive to the generation of a species of small-scaled critters, which example, however otherwise now bizarre to us (and to a generation of scholars who have passed over it in silence), Vasubandhu appears to believe well known, and capable of supporting striking generalizations about life and matter; and if not angels exactly, we shall here have to consider with Vasubandhu beings no less challenging to theories of the physical world, the forms of life Buddhists believe provide for the continuity between death and re-birth.

Before we tuck in, however, I’d like to suggest why I think such an exercise of close attention to be salutary. I believe making sense of the example is important for three sorts of reasons: textual, philosophical, and, to speak rather self-importantly, methodological. Pursuing this example for its possible source will help widen our sense of the textual world in which philosophers like Vasubandhu worked, one that this example might just show to be far more cosmopolitan than we have otherwise been inclined to believe possible. Pursuing the philosophical implications of the example in turn will help us appreciate more carefully the contours of Vasubandhu’s interest in the concepts of life and matter and how they interrelate. And lastly, as I shall touch on at the end, using such an example we can begin to develop an appreciation for the “system of possibility” within which Vasubandhu worked. By that last I have in mind what Ian Hacking did when he spoke of that which constrains the sorts of statements about what is and what is not that are even available as truth evaluable propositions, as candidates, that is, for being true or false.⁴

I am indebted to Ian Hacking for the intuition that it is such systems of possibility that allow us to get a handle on what distinguishes one discourse and practice of knowledge from another, and I share his discomfort with a priori determinations of the boundaries of such discourses, believing that we must eschew any attempt to stipulate in advance what it takes to understand their distinctive contours. In particular, I should be mortified if the reader took away from my brief comments here about *prima facie* bizarre examples that we cannot *understand* Vasubandhu or that we cannot feel ourselves into his world. I mean only to show that there is something here that still wants doing, and that—as Hacking puts it with respect

3. From *An Exposition with Notes Vpon the First Epistle to the Thessalonians*, quoted in Harrison 2016: 45–47.

4. Hacking 2002: 97.

to another ancient writer of encyclopedic scope, Paracelsus—to understand the sense of what it meant to know a world “one has to read a lot.”⁵

One last thing by way of introduction: it is not only this example that allows me to question whether we can simply line up Vasubandhu's sense of possibilities alongside ours. As we shall see, the example belongs to a set of concerns that take the Buddhist philosopher to the outer boundaries of his received imaginaire and force him and his interlocutors to address concerns that have not, as they put it, come down to them in their tradition; and that strikes me as important.

Thus oriented, let us approach our example with a generalization about matter enshrined in a commonplace we would find readily intelligible. Many Buddhist philosophers speak of the resistance exhibited by some items to co-occupation. Whether such resistance (*pratighā*, perhaps most closely approximated by Leibniz's notion of antitypy⁶) is best thought of as a dispositional or categorical property, and whether or not we can really use such a property to get at what is criterial of non-mental particulars—two worthy questions that occupied Buddhist philosophers about *pratighā*—need not occupy us here.⁷ What is of interest to me here is whether or not acknowledging resistance to co-occupation committed Buddhist philosophers to the truism David Wiggins believed philosophers in our time are too quick to call in evidence and rely upon: that two things cannot be in the same place at the same time.⁸

There is reason to believe that Vasubandhu, for one, might have wished to see a more careful statement of such a truism:

Beings between death and rebirth are *apratighavān*, which is to say, they do not encounter *pratigha* in the sense of “resistance”: on account of their not being obstructed even by diamond.

apratighavān [3.14c] *pratighātaḥ pratighaḥ, so 'syāstīti pratighavān, na pratighavān: apratighavān. vajrādibhir apy anivāryatvāt* (Pradhan 1975: 125)⁹

If there can be thought to be a form of life possessed of all physical sensory capacities, as these beings between one living form of life and another are thought to be, and yet so constituted as to be able to pass in and out of other materials, even the most obdurate, we will want a more careful formulation of the exact sense in which two things cannot be in the same place at the same time.

To begin with, one might offer two comments about the possibility Vasubandhu here canvasses, one textual and the other philosophical. Both comments have to do with the direction in which we sharpen our truism, though both are concerned not so much with the above as with the exemplum Vasubandhu immediately goes on to adduce:

To explain: it is attested that on breaking open a mass of red-hot iron you find little critters that have come to be in the midst of it.

tathā hi pradīptāyaḥpiṇḍabhede tanmadhyasaṃbhūtaḥ krimir upalabdhaḥ śrūyate (Pradhan 1975: 125)

I say “critters”—treating *krimih* as a mass noun—because I am not confident that we are dealing with worms (or some variety of small wiggling things) as distinct, say, from an identifiable insect at any particular specifiable stage in its life-cycle. I also don't know whether it is winged or crawling insects that is meant—*krimi*, I believe, can cover all these cases,

5. Hacking 2002: 97.

6. Garber 2009: 23–24.

7. For such questions, see Dhammajoti 2007: 244–49, Kachru 2015: 384–85 with notes.

8. Wiggins 1968.

9. See also Sangpo 2012: Vol II, 968.

though it does seem often enough to mean worms, as it does here, in a discussion which follows hard on the heels of the exemplum above:

Were there to be a heap of meat piled as high as Mount Sumeru, during the rains all of it would be filled with critters.

yady ā sumeroḥ sthalaṃ māṃsasya syāt tat sarvaṃ varṣāsu krimiṇāṃ pūryeta (Pradhan 1975: 125–26)¹⁰

I'll come back to the thought experiment introduced by this strange hypothetical in my conclusion. For now, as close on the heels of the little critters in the ball of iron as the living beings on putrefying meat are, one might with justice take “critters” to mean “worms” or at least “creepy-crawlies.” But be that as it may, the important point is the qualification that these are critters *born* in heated metal.

It is important to underscore that the example emphasizes a fact about the generation of a certain class of living beings. This emphasis is crucial if we are to suggest the salience of Vasubandhu's example, either for historians of intellectual history interested in the textual provenance of this example or philosophers who would rather focus on the precise philosophical point Vasubandhu believes to be at issue. First the textual comment. I do not know if there is a source for this report in either the literature concerned with practices or the theoretical literature from South Asia.¹¹ But there is a source that would immediately come to mind to anyone familiar with the wonders of European antiquity, knowledge of which I owe to a seemingly omniscient colleague:¹²

In Cyprus, where copper ore is smelted, and the ore is piled on the furnace for many successive days, certain creatures are engendered in the fire, slightly larger than large flies, and winged: these jump and crawl through fire.¹³

Thus Aristotle, in A. L. Peck's translation of *Historia Animalium*, the second example in his discussion of the fact that animals can come into existence in materials that, as he puts

10. For more on this discussion after 3.14d, see also Bronkhorst 2000: 56.

11. I owe to the kindness of Ching Keng and Michael Radich my confidence (such as it is) in saying that the example is at least not found in the labyrinths of the many texts known as the *Mahāvibhāṣā* and now only surviving in translation. But in one other instance when Vasubandhu introduces an example with *śrūyate*, saying of the example, in effect, that it has been attested, we do find textual antecedents. When commenting on 4.8a, Vasubandhu denies that human actions that manifest the intent for which they are undertaken can fail to have a definite ethical valence; he goes on to restrict ethically indeterminate actions to the Brahma-world (*brahmaloka*), alternatively, the psychological state associated with the first meditative absorption. Crucially, Vasubandhu does so on the strength of a report: “This [class of actions that manifest their intent and yet are ethically indeterminate] exist only in the Brahma-world; for a concrete action of Mahābrahmā's that sprung from deceit *has been reported* (*brahmaloka evāsti; mahābrāhmaṇo hi sāthyasamutthitaṃ kāyakarma śrūyate*)” (Pradhan 1975: 201; my emphasis). As Vasubandhu goes on to make plain, this alludes to the story of Mahābrahmā resorting to boasting self-praise in an attempt to deflect and so avoid the probing questions of Aśvajit. Vallée Poussin found antecedent sources in the Pāli Canon as well as in the *Mahāvibhāṣā* for the narrative Vasubandhu seemed to have in mind (for which see Sangpo 2012: Vol II, 1517 n. 126). Curiously, the case is also discussed in some detail in the *Abhidharmakośabhāṣya* itself, at 2.169, without its needing to be cited from a particular textual source. I do not know whether by *śrūyate* Vasubandhu means to introduce a well-known exemplum, something for which you would not think to ask for a particular textual antecedence; compare this with the use of *śru* in the *Mahāvastu* (as in the formula *etametam śrūyati*) to introduce *well-known* textual traditions, as discussed in Jones 1956: xi. Also worth knowing is that while Yaśomitra is silent on the example of the little critters born in molten metal, the example was not to be forgotten: see **Nyāyānusāra* (T 1562 [XXIX] 477b13–16); and **Abhidharmapiṭakaprakaraṇaśāsana-śāstra*, T1563 (XXIX) 838a10–12. My thanks to Michael Radich for these two references.

12. Janet Spittler of the Department of Religious Studies at the University of Virginia.

13. Peck 1970: 183–84; *Historia Animalium* V: xix.

it, are most resistant to putrefaction. It is this context, and not the question of the affinity of some animals to fire, that interests me; as it did not Aelian, however, who preferred the salamander: “The Salamander is not indeed one of those fire-born creatures like the so-called ‘Fire-Flies,’ yet it is as bold as they and encounters the flame and is eager to fight it like an enemy.”¹⁴ But Aelian’s reason for moving on has to do with something he says at the outset of the second book:

That living creatures should be born upon the mountains, in the air, and in the sea, is no great marvel, since matter, food, and nature are the cause. But that there should spring from fire winged creatures which men call “Fire-born,”¹⁵ and that these should live and flourish in it, flying to and fro about it, is a startling fact. And what is more extraordinary, when these creatures stray outside the range of the heat to which they are accustomed and take in cold air, they at once perish. And why they should be born in the fire and die in the air others must explain.¹⁶

About five centuries after Aristotle (whose work Aelian in any event knew only secondhand),¹⁷ the example has become a commonplace, and as a commonplace, an occasion for wonder, another item in a long list of things you just won’t believe. No less wondrous is finding the resort to this reported phenomenon in Vasubandhu, roughly two centuries later, and many miles away, though Peshawar is perhaps closer to Rome than some other intellectual centers of what has been called the Sanskrit cosmopolis.

But what is important for us is not just textual collocation. There is a philosophical point Vasubandhu finds in this example from what just might provocatively be described as a cross-cultural tradition of paradoxography.¹⁸ What we want is the idea that things can be born *in* a material that one might otherwise suppose to rule out something’s being there. Vasubandhu’s point, to be sure, does not seek to advance a general discussion of generation, though the larger context does have to do with the circumstances of generation (of different kinds of beings). But generation *is* philosophically salient to this example in a more immediate way.

To see how, let us begin by saying that what is important is simply that some thing *w* occupies a volume *W*, but not so as to rule out other things being discovered in that same volume. Speaking only like this of having more than one thing in the same volume (and making no mention of generation) already requires of us that we adjust the philosophical truism. We will want to say something like this:

For a volume *W*, if some thing *w* wholly occupies it at time *t*, then there is no other thing in *W* which can wholly occupy it at the same time.¹⁹

Thus reformulated, we might think that Vasubandhu’s wonder hardly constitutes a challenge to the general principle. All we have to say is that what Vasubandhu’s example shows us is that metals do not *wholly* occupy the volumes they occupy. Zooming in, we might find that

14. Scholfield 1958: 129; *On Animals* II: 31.

15. I have retranslated this, keeping in mind Scholfield’s note *b* of the literal phrase, preferring not to create misleading resonances with his choice of “fire-flies.”

16. Scholfield 1958: 89–91; *On Animals* II: 2.

17. Scholfield 1958: xv.

18. For our example is not isolated. I must set aside for another time a comparison of reports concerned with what is remarkable about female turtles and the way in which they incubate their eggs, taking up what Pliny reports from India in *Natural History* (Book IX, chapter 12 [10], lines 34–35 in Rackham 1940: 189) and the third story from the *Samgītiparyāya* discussed in Vasubandhu’s commentary to *Abhidharmakośa* 3.41a, for which see Sangpo 2012: Vol. II, 1037.

19. Cf. Wiggins’ example (1968: 90) of mereological parts as already recommending adjustment of the truism.

metal occupies W gappily, with sub-volumes and sub-sub-volumes of W remaining free for occupation by some other sorts of things. And indeed, there is reason to think that Vasubandhu would have assented to the fact that once you think that a thing does not occupy a volume by filling it, then you do not have what you need in order to have a concept of a thing's resisting co-occupation.²⁰

Then why did Vasubandhu here think he has a case counting as an important exception to the general principle? This is where the specifics of this natural historical example are important. I think Vasubandhu wants us to see on the strength of this natural wonder that metal does not, in fact, occupy a volume gappily, even less so when superheated to the point of melting. But though it fills the volume it occupies, there are cases where things of an entirely different kind can come to be generated in the volumes that the metal already occupies. I think Vasubandhu wants us to see on the strength of this example a confirmation (however otherwise bizarrely to us) of the reformulated principle David Wiggins would have us use in place of the truism:

No two things of the same kind (that is, no two things that satisfy the same sortal or substance concept) can occupy exactly the same volume at the same time.

But on the face of it, the sub-volumes of the metal occupying W and the individual critters that come into being in the same volume W (without somehow, having to compete for room, to use Wiggins' felicitous phrase) are not things tracked by a sortal of dissimilar type. That would be to suggest that our concept of matter is heterogenous, admitting of incommensurable ways in which things might count as material substances (or at least particulars).

I think this *is just* what Vasubandhu wants us to see with this example. All items that count as material occupy space, and all compete for space. But competition is only between items that share the same kind of way of exemplifying materiality. Thus, no critter born in some sub-volume of W occupied by metal can co-occupy the same sub-volume of W occupied by another critter of the same kind at the same time.

This invites very general questions concerning the univocity of the function (if not the meaning) of our most general categorical types. There are finer-grained questions as well. I think Vasubandhu would enjoy David Wiggins' own fiction of water in a sponge:

What if in defiance of fact and the actual laws of chemistry and physics the water and the sponge were so utterly mixed up that spatial distinction seemed impossible, not only at the molecular level but also at the atomic and the subatomic? And what if you had only to squeeze to get water and sponge apart again? Surely they would be the same sponge and the same (consignment of water) afterward? And would they not have been in exactly the same place at the same time?²¹

Vasubandhu's example presents us with some of the same fundamental questions Wiggins uses the above example to bring to our attention. Taking the questions up will require asking what goes into our having a handle on something's being a particular or an instance of a physical type when we do not help ourselves to a notion of place. Some of the finer-grained questions will involve our seeking principles that would allow us to track different particulars even where spatial differences are too fuzzy to help, principles that would accord priority to features rather than places. For Vasubandhu, unlike the trope theorists with whom he is sometimes conflated by those seeking to engage Buddhist philosophers philosophically, does

20. On arguments to this effect in the *Vimśikā*, see Kapstein 2001: 191, Kachru 2015: 397–401, 407.

21. Wiggins 1968: 90.

not (when being careful) just help himself to a notion of place.²² And I am not sure that Vasubandhu would agree with Wiggins when he says that “no volume or area of space can be qualified simultaneously by distinct predicates in any range (color, shape, texture, and so forth).”²³

For example, can a given volume be described as containing at the same time more than one feature, say the feature of color and the feature of hardness (as Vasubandhu understands these)? The answer turns out not to be obvious, and not only because it was unclear to several Buddhist philosophers whether or not to count an instance of color and the elemental material capacities it must, being material, also exhibit, as two distinct and irreducible features.²⁴

Or take the case of mirror images (or reflections more generally), whose ontological status, very much to the credit of these philosophers, proved simply not to be self-evident. The headache Vasubandhu faced when attempting to settle the ontological status of these most familiar of phenomena had to do with squaring the intuition that while it seemed as if mirror-images are a kind of visible stuff (like colors) and so ought to resist being co-occupied by other visibilia, they yet seem to be able to live in volumes already occupied by other kinds of visible stuff: that being part of how—the thinking went—they seemed to come into being: in or on (or, as part of) the visible surfaces of things.²⁵

Once we get rid of substances, it turns out not to be so very easy to determine whether mirror-images do or do not “compete for room,” and whether or not we wish to take them to be an illegitimate kind of one thing, rather than their own variety of matter. It raises the obvious question J. L. Austin pressed against A. J. Ayer: just what is to serve as our paradigm for an ontologically respectable thing? Not everything in this world that is real need conform to the epistemologist’s invoice of “medium-sized specimens of dry goods.”²⁶ And what if philosophers are far less able to cope with intrinsic categorical heterogeneity than are our conventions? Vasubandhu, mind you, ended his inconclusive analysis of mirror-images with an exclamation of wonder: “Indeed, one just can’t fathom all that phenomena are capable of!” (*acintyo hi dharmāṇāṃ śaktibhedaḥ* [Pradhan 1975: 121]).²⁷

If we want to take the analytic project of the Buddhist metaphysicians and their yet to be reconstructed *episteme*, or what I would call their system of possibilities, seriously²⁸—as we, even if only as historians, should—we will want to know how much room the world has to accommodate revisions of our intuitions and how much room our imagination affords for us to intelligibly revise our intuitions. To follow this through, in turn, will require thinking seriously about the direction and the scope of the revision suggested by the abandonment of

22. This ought to soften the assimilation of *dharmas* to classical tropes (property particulars) in Goodman 2004: 393. It is useful to remember that some Buddhist philosophers allow that the twin criteria of physicality—something’s being physical on account of being situated spatially with respect to me, and so ostensible (*sanidarsānatva*), and something’s being physical because resistant to co-occupation (*sapratighāatva*)—can come apart. See Dhammajoti 2007: 246–47; on what some Buddhist philosophers have to say of the complex way in which feels can be located, see Kachru 2015: 216; on Vasubandhu’s views on the spatio-temporal conditions for the individuation of particulars, see Kachru 2015: 221–23, also nn. 111, 397.

23. Wiggins 1968: 94.

24. Dhammajoti 2007: 253–56, Kachru 2015: 375 n. 79.

25. For the debate, see Kritzer 2000: 243–45. Crucially, the argument rests on the inadmissibility of two things occupying the same place (*sahaikātra dvayābhāvat*). The interpretive difficulty Vasubandhu faces (and to which he implicitly confesses) has to do with determining what, in this case, the two distinct things are. On the importance of Vasubandhu’s tacit acknowledgement of effectively failing to find what would have been an argument from illusion, see Kachru 2015: 191 n. 50.

26. Austin 1962: 8.

27. On wonder in the *Abhidharmakośabhāṣya*, see Kritzer 2002.

28. For a beginning, however, see Bronkhorst 2006.

some aspects of our pre-theoretical intuitions concerning what there is. Which aspects these are, and what, indeed, is involved in “our” pre-theoretical intuitions concerning substances, being only some of the issues in play when trying to get clear on such fundamental tests of our intuitions as whether things can co-occupy a place or not.

To fill out the picture more fully, then, will require exploring in much more detail than we have yet done the intuitions of Buddhist philosophers concerning *stuff* and the natural world, the messy details of which are frequently far more absorbing than are the programmatic statements we have become accustomed to formulating on their behalf. But to leave the most obvious point for last: much will then have to depend on the world they took themselves to be in, and what that world has in it, and how one is to make sense of the ways in which they tried to make sense of it.

Take the bizarre²⁹ hypothetical again:

Were there to be a heap of meat piled as high as Mount Sumeru, during the rains all of it would be filled with critters.

The hypothetical asks us to consider that given the right conditions there can be an indefinite richness of life. But where does all this life come from? That’s what Vasubandhu’s interlocutor, not unreasonably, wants to know: for what must the world be like now for this proliferation of new life to be possible? This is one of the analytic chambers of the beating heart of the Mahāvibhāṣā metaphysical program: every possibility revealed in a counterfactual must be referred back for its truth to a ground-floor actuality.³⁰ If we can imagine a circumstance on which an infinity of lives *can* come into being, for example, there must *now* be an infinity of lives. But where? The answer, given Buddhist commitments, must involve some non-evident life around us now to serve as a causal antecedent, at least as many lives as the indefinitely many new lives the hypothetical suggests are possible:

You’re going to have to say more about this: were the lives antecedent³¹ to these hanging about just then in expectation of this event? Alternatively, where did they come from at the right time for those [new lives to come into being there]? This has not come down to us either in scripture or in theoretical treatises.

kim idāniṃ tatparikṣā eva teṣāṃ antarābhāva āsan kuto vā tadā tebhyo gatā iti vaktavyam. naitad āgatam sūtre śāstre vā (Pradhan 1975: 126)³²

This seemed, then, even to Vasubandhu’s interlocutors to incline to an absurd way of speaking. I won’t bore you with the technical details. Just consider Vasubandhu’s response to

29. I say “bizarre” with tongue in cheek. For I have remained silent on one wider context of relevance that must surely be included by any detailed story of the world of these ideas. As late as the twelfth century we find that concerns with the physical phenomena of putrefaction (and fermentation) can record a vital concern on the part of Jaina traditions—being a way of recording how matter overlaps with the possibilities of life, important not only theoretically, but for the concrete matter of recommending ethical discipline to the laity as well, as for example in the *Purusārthasiddhyupāya* of Amṛtacandra, verses 65–68; 71. Looking back, we might want to ask how the theoretical ambition, style, and episteme we find in the *Abhidharmakośa* do or do not intersect with the attempts of a possible contemporary of Vasubandhu, Umāsvāti (if we follow the date in Dundas 2006), to chart and plot the world of the non-living and the living in the *Tattvārthasūtra* (particularly 2.23).

30. Along with the mereological commitment to analysis (in the etymological sense of that word) and simples (physical and conceptual), as discussed in Bronkhorst 2006, and the subscription to a very strict form of the correspondence principle, for which see Bronkhorst 2011: 46–50.

31. Literally, the beings between birth and death, here brought into consideration as those beings for whom the worms count as their succeeding form of life.

32. Cf. Bronkhorst 2000: 56.

being forced by theory to the outer edges of what can count as part of the received Buddhist imaginaire:

But this can make sense in the following way: there is no end to the number of creatures of brief lives who subsist on smells and tastes (*evaṃ tu yujyate: gandharasābhigrddhānām alpāyuṣāṃ jantūnām anto nāsti* [Pradhan 1975: 126]).³³

I stress again: we are seeing a philosopher working his way to the edges of his tradition. What was it that he thought so important to accommodate? I don't have a pithy answer for why Vasubandhu wants us to hold on to the following thought: life involves an infinitely dense continuum, all about us, at every scale.³⁴ Believe that, and you will be forced to accommodate much by way of collocation that might seem strange. There may not be enough room for all that matters otherwise.

But if we want to know what difference this in turn makes, and what sense it makes for a Buddhist to have wanted to make sense of this particular set of possibilities,³⁵ even at the cost of skating on the thin ice at the edges of his tradition, we will have to consider more seriously than we have the wonders of which they spoke, whether they be wonders, like mirror images, that we have come to overlook, or wonders, like the creatures born in molten lead, that are harder to place. As Hacking advised, we shall have to read more, and read across the grain of our received textual traditions, in order that we may follow the promise Kuhn finds in re-reading. Textually, and philosophically, Vasubandhu's world seems richer than we have allowed ourselves yet to feel possible.

33. Cf. Bronkhorst 2000: 56.

34. The commitment to scale does not seem to be an idle wheel in Vasubandhu's philosophical thinking. One should note that that it is to Vasubandhu's considerable credit that he elsewhere (in his comments on verse 15d of the *Vimśikā*) recognizes that any account of the physical basis for sensation and phenomenological experience must be able to account for the constituent fact of scale; see Kachru 2015: 368–70.

35. Again, it would not have seemed strange for a Jaina author to say so, the commitment to omnipresence of life being a cornerstone not only of theory but praxis, for which see Jaini 1979: 109, 242. Nor would they have shied away from the collocation of souls in material loci, though such principles of life are not themselves construed as being physical. Richard Fynes (1996: 21) has noted a road not taken, one begun to be paved as early as 1831 by F. C. Baur (1831: 449–51), that would have us view such details as the scales of life of ethical salience and the omnipresence of life (which Baur saw evidenced by Jainism and Manichaeism, for example) as important for getting an initial prospect on what one might consider a non-parochial environment of thought. For any such connected intellectual story, even more intriguing South Asian theoretical conceptions entertaining the possible interactions of life and matter at small scales will have to be considered, such as *pañña-parihāra* (for which see Basham 1951: 31, 37, 48–49), something of a lost or orphan conception suggesting that a soul can occupy existent matter at different scales, cycling, as it were, through matter—making our question of the collocation of living and non-living matter a more vexing question for the conception of matter involved.

REFERENCES

- Austin, J. L. 1962. *Sense and Sensibilia*. London: Oxford Univ. Press.
- Basham, A. L. 1951. *History and the Doctrines of the Ajivikas: A Vanished Indian Religion*. London: Luzac. [Rpt. Delhi: Motilal Banarsidass, 1981; cited after rpt.]
- Baur, F. C. 1831. *Das manichäische Religionssystem nach den Quellen neu untersucht und entwickelt*. Tübingen: C. F. Oslander.
- Bronkhorst, Johannes. 2000. *Karma and Teleology: A Problem and Its Solutions in Indian Philosophy*. Studia Philologica, Monograph Series, vol. 15. Tokyo: International Institute for Buddhist Studies.
- _____. 2006. Systematic Philosophy between the Empires: Some Determining Features." In *Between the Empires: Society in India 300 BCE to 400 CE.*, ed. Patrick Olivelle. Pp. 287–313. New York: Oxford Univ. Press.

- _____. 2011. *Language and Reality: On an Episode in Indian Thought*. Tr. Michael S. Allen and Rajam Raghunathan. Brill's Indological Library, vol. 36. Leiden: Brill.
- Dhammajoti, K. L. 2007. *Sarvastivada Abhidharma*. Hong Kong: Center for Buddhist Studies, Univ. of Hong Kong.
- Dundas, Paul. 2006. A Non-Imperial Religion? Jainism in Its "Dark Age." In *Between the Empires: Society in India 300 BCE to 400 CE*, ed. Patrick Olivelle. Pp. 383–414. New York: Oxford Univ. Press.
- Frankfurt, Harry G. 1970. *Demons, Dreamers and Madmen: The Defense of Reason in Descartes's Meditations*. History of Philosophy Series. Indianapolis: Bobbs-Merrill. [Rpt. Princeton: Princeton Univ. Press, 2008; cited after rpt.]
- Fynes, Richard C. C. 1996. Plant Souls in Janisim and Manichaeism: The Case for Cultural Transmission. *East and West* 46: 21–44.
- Garber, Daniel. 2009. *Leibniz: Body, Substance, Monad*. New York: Oxford Univ. Press.
- Goodman, Charles. 2004. The Treasury of Metaphysics and the Physical World. *The Philosophical Quarterly* 54: 389–401.
- Hacking, Ian. 2002. *Historical Ontology*. Cambridge, Mass.: Harvard Univ. Press.
- Harrison, Peter. 2016. Angels on Pinheads and Needles' Points. *Notes and Queries* 63: 45–47.
- Jaini, P. S. 1979. *The Jaina Path of Purification*. Berkeley: Univ. of California Press.
- Jones, J. J., tr. 1956. *The Mahāvastu*, vol. III. London: Luzac.
- Kachru, Sonam. 2015. *Minds and Worlds: A Philosophical Commentary on the Twenty Verses of Vasubandhu*. PhD Dissertation, Univ. of Chicago.
- Kapstein, Matthew T. 2001. Mereological Considerations in Vasubandhu's "Proof of Idealism." In *Reason's Traces: Identity and Interpretation in Indian and Tibetan Buddhist Thought*. Pp. 181–204. Somerville, Mass.: Wisdom Publications.
- Kritzer, Robert. 2000. Rūpa and the Antarābhāva. *Journal of Indian Philosophy* 28: 235–72.
- _____. 2002. Unthinkable Matters: The Term *acintya* in the *Abhidharmakośabhāṣya*. In *Early Buddhism and Abhidharma Thought: In Honor of Dr. Hajime Sakurabe on His Seventy-Seventh Birthday*. Pp. 65–86. Kyoto: Heirakuji Shoten.
- Kuhn, Thomas S. 1977. *The Essential Tension: Selected Studies in Scientific Tradition and Change*. Chicago: Univ. of Chicago Press.
- Peck, A. L., tr. 1970. *Aristotle: Historia Animalium*, vol. 2: *Books 4–6*. Loeb Classical Library, vol. 438. Cambridge, Mass.: Harvard Univ. Press.
- Pradhan, Prahlad, ed. 1975. *Abhidharmakośabhāṣyam of Vasubandhu*, rev. 2nd ed. Tibetan Sanskrit Works, vol. 8. Patna: K. P. Jayaswal Research Institute. [First ed. 1967]
- Rackham, H., tr. 1940. *Pliny: Natural History*, vol. 3: *Books 8–11*. Loeb Classical Library, vol. 353. Cambridge, Mass.: Harvard Univ. Press.
- Sangpo, Gelong Lodrö, tr. 2012. Annotated English translation of Louis de La Vallee Poussin, tr., *Abhidharmakośabhāṣya: The Treasury of the Abhidharma and Its (Auto)commentary, volumes I–IV*. Delhi: Motilal Banarsidass.
- Scholfield, A. F., tr. 1958. *Aelian: On Animals*, vol. 1: *Books I–V*. Loeb Classical Library, vol. 446. Cambridge, Mass.: Harvard Univ. Press.
- Wiggins, David. 1968. On Being in the Same Place at the Same Time: With One Remark About Categories and Materialism. *Philosophical Review* 77: 90–95.