Buddha, Heidegger, entropology

vayadhammā saṅkhārā

"the dharma of dissipative systems is decay" 1

Buddhism's insight is the inverse of Advaita Vedānta's. The inquirer asks "What is that by knowing which all is known?" and Vedānta answers "You are that." Reality is the one eternal brahman, existence-consciousness-bliss, sat-cit-ānanda. The one brahman in each human being is called ātman. Ātman is brahman, brahman ātman. Your true self is the one ātman-brahman. This truth is not evident because a power of brahman, māyā, veils brahman with phenomena. (Why should brahman go to the trouble of hiding from itself? Cf. Nietzsche's 'Truth is ugly.') Everything apparently real, all we take to be real, is this phenomenal veil covering the really-real. The really-real is the one eternal absolute entity – and you are that.

Buddhism's insight is the inverse: phenomena are real. And phenomena are empty, śūnya, in the sense of 'dependently arising,' devoid of svabhāva, 'own-being,' 'Sein an sich,' 'autophysis.' We cannot experience any hidden, eternal, entitative ground of existence; no brahman for us. The dependently arising conditions giving rise to the impermanent (anicca/anitya) phenomena of life are what we take to be selves. No transcendental self; we are anattā/anātman, 'without self.' Though one thing's for sure: human existence is dukkha/duhkha, trouble.⁷

¹ Drawing on both Buddhist and Vedic sources makes jumping back and forth between Pāli and Sanskrit unavoidable. Often herein the same word will be cited in both languages, and the format is Pāli/Sanskrit; as in *dhamma/dharma*. 'Meager' grossly exaggerates my knowledge of these tongues.

² Muṇḍaka Upaniṣad 1.1.3.

³ "The finest essence here—that constitutes the self of this whole world; that is the truth; that is the self (ātman). And that's how you are [tat tvam asi], Svetaketu." Chāndogya Upaniṣad 6.8.1 in Upaniṣads (tr. Patrick Olivelle 1996) 152. See Olivelle's note at 349 on Joel Brereton's interpretation of the neuter form tat as signifying likeness, not identity.

⁴ satyaṃ jñānaṃ anantaṃ brahma, 'being-knowing-unending is brahman.' Taittirīya Upaniṣad 2.1.1.

⁵ *Māyā* is a two-faced power concealing the truth and projecting phenomena. So Kṛṣṇa to Arjuna: "This entire world is deluded by these three conditions of being which derive from the *guṇas* ['threads'], and thus it fails to recognize me who am in all eternity beyond the *guṇas*. For this miraculous world of my illusion [*māyā*] which consists in the three *guṇas* [*guṇamayi*] is hard to escape: only those who resort to me overcome this illusion." *The Bhagavadgītā in the Mahābhārata: A Bilingual Edition* (ed. tr. J. A. B. van Buitenen 1981) 29[7].13-14, p. 99.

⁶ *paṭiccasamuppāda*; "The central insight and doctrine of Buddhism: all things exist as processes (they arise as a

⁶ paţiccasamuppāda; "The central insight and doctrine of Buddhism: all things exist as processes (they arise as a complex concatenation of changing factors, continue to evolve and change, and eventually pass out of existence)." Early Buddhist Discourses (ed. tr. John J. Holder 2006) 204.

⁷ "The Pāli word *dukkha*, made up of *dur* (bad, unsatisfactory [δυσ-]) and *kha* (state, '-ness') extends its meaning from the actual suffering present in physical pain or mental grief to any unwelcome state of insecurity, no matter how vague." Notes to First Sutta in *Three Cardinal Discourses of the Buddha* (tr. Nanamoli Thera 1960); p. 9 here: http://enlight.lib.ntu.edu.tw/FULLTEXT/JR-MISC/misc140384.pdf .

There are three kinds of duḥkha. Duḥkha-duḥkhatā is straightforward hurting; vipariṇāma-duḥkhatā is unsettledness from impermanence; saṁskāra-duḥkhatā are 'the blues that are hard to explain,' for "saṁskāra is notoriously vague."

Ferenc Ruzsa shows that "the original understanding of *saṁskāra-duḥkhatā* was probably not the suffering related to subliminal impressions but rather the suffering inherent in anything of a composite nature."

Why is compoundedness troubling? Ruzsa guesses "the most authentic interpretation comes from the last sentence of the Enlightened One: *vayadhammā saṅkhārā*, 'compounds necessarily decay.' A compound can, and sooner or later will fall apart and will no longer exist. In the end even a Buddha dies."¹⁰ On Ruzsa's interpretation it's the **prospect** of disintegration that's troubling.

Glancing forward to Heidegger's take for a clue, we read that "Da-sein expends itself primarily for itself as a being that is concerned about its being, whether explicitly or not. Initially and for the most part, care is circumspect taking care of things. Expending itself for the sake of itself, Da-sein 'uses itself up'."¹¹ That account emphasizes the experience of **ongoing** dissipation.

Saṅkhāra/saṁskāra we accordingly interpret here as 'dissipative system,' for Buddha knew a dissipative system when he saw one. Soon after enlightenment he tells his assembled followers in what we know as the Fire Sermon that "All is burning," sabbam ādittam:

"The mind is burning, ideas are burning, mind-consciousness is burning, mind-contact is burning, also whatever is felt as pleasant or painful or neither-painful-nor-pleasant that arises with mind-contact for its indispensable condition, that too is burning. Burning with what? Burning with the fire of lust, with the fire of hate, with the fire of delusion. I say it is burning with birth, ageing and death, with sorrows, with lamentations, with pains, with griefs, with despairs." 12

Fire metaphor pervades the *dhamma*. Richard Gombrich devotes a chapter to "the centrality of fire in Buddha's thought," writing, "the five processes [*khandha*] that constitute our experience are being compared to burning bundles of firewood to feed either the fire of our suffering or

⁸ Ferenc Ruzsa, "The Types of Suffering in the *Mahāvyutpatti* and the Pāli Canon," 56 *Acta Orientalia Academiae Scientiarum Hungaricae* 49, 50 (2003).

⁹ *Id.* 49, 55.

¹⁰ *Id.* 54.

¹¹ Being and Time (tr. Joan Stambaugh 1996) 305. Das Dasein **verwendet sich** als Seiendes, dem es um sein Sein geht, pimär ob ausdrücklich oder nicht, **für sich selbst.** Zunächst und zumeist ist die Sorge umsichtiges Besorgen. Umwillen seiner selbst verwendend, »verbraucht« sich das Dasein.

¹² Three Cardinal Discourses, Third Sutta.

the fires of passion, hatred and confusion (it makes no difference which way you look at it)."¹³ And the Buddhist term for the cessation of *dukkha* is *nibbāna/nirvāṇa*: 'flameout.'

Analysing the role of fire in the Vedas Gombrich says the *Rg Veda* "thought of consciousness *in terms of fire* without drawing a boundary between what was to be taken literally and what was not." The Buddha "draws on this idea but is more analytical. He sees consciousness as being like fire in that it is an appetitive process, which cannot exist without having something to feed on. Moreover, the analogy with fire can provide a model of how a process can be dynamic and seek out its objects without being guided by a seeker." ¹⁵

So should the inquirer ask, "What, Buddha, is that by knowing which all is known?" presumably the answer would come back, "You are burning." Gombrich believes "the Buddha derived from fire the inspiration that what appears to be a 'thing' is in fact a process; that it is a process which acts without an agent; and that its operation is neither wholly determined nor wholly random." This is perhaps Buddha's "most important philosophical idea, the substitution of non-random processes for objects." The process of the substitution of non-random processes for objects."

That you are burning does not mean that there exists a 'you' which happens to be on fire; what are 'you' apart from the process of burning? While Gombrich agrees that there is no one Pāli word which precisely corresponds to 'process,' he would argue "that much the same ground is covered by the word <code>saṃkhārā</code> [saṅkhārā], which refers not only to the fourth <code>khandha</code>, where I have translated it as 'volitions', but also, far more broadly, to every element in our world of experience." Saṁskāra-duḥkhatā then, is the trouble inherent in a composite's burning up or in a more general sense dissipating; entropic trouble. ¹⁹

It was an achievement of nineteenth century science to show that there is no thermodynamically principled difference between a fire and, say, a tornado or a hurricane or a dust-devil. Fires and these phenomena of atmospheric fluids are all thermodynamically

¹³ Richard Gombrich, *What the Buddha Thought* (2009) 115. *See also* the précis in Gombrich, "The Buddha's Thought," 64 *Revue Internationale de Philosophie* 315 (2010). In this chapter Gombrich credits especially the work of Joanna Jurewicz in illuminating his understanding.

¹⁴ What the Buddha Thought 116.

¹⁵ "The Buddha's Thought" 329.

¹⁶ *Id.* 328.

¹⁷ What the Buddha Thought 111.

¹⁸ "The Buddha's Thought" 330-331.

¹⁹ Hirschman tries to take account of "the importance and pervasiveness of slack," the fact "not only that slack has somehow come into the world and exists in given amounts, but that it is *continuously being generated* as a result of some sort of entropy characteristic of human, surplus-generating societies." Albert O. Hirschman, *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States* (1970) 14-15; his italics. *Saṃskāra-duḥkhatā* is a result of some sort of entropy characteristic of human existence itself.

dissipative systems; by destroying energy gradients these processes show up as more or less persisting structures.²⁰ As non-living systems none of them senses its dissipation.

Heidegger finishes describing certain existentials and says that in their coherence they constitute "a basic kind of everyday being" which he designates "the falling of Dasein." He observes that "the kinesis [die Bewegtheit] of falling [des Verfallens] has the characteristic of a whirlpool [als Wirbel]." The facticity of Da-sein is such that Da-sein, as long as it is what it is, remains in the throw [im Wurf] and is sucked into the eddy [hineingewirbelt] of the they's inauthenticity."

This image gains intensity in Heidegger's usage of it over time. In 1929 the former military weather-observer upgrades the system from *Wirbel* to *Sturm*: "We ask anew: What is man? A transition, a direction, a storm sweeping over our planet, a recurrence or a vexation for the gods? We do not know. Yet we have seen that in the essence of this mysterious being, philosophy happens."²⁴

In notes made during the catastrophic years 1936-1946 Heidegger bleakly observes that:

"The still hidden truth of Being is withheld from metaphysical humanity. The laboring animal is left to the giddy whirl [*Taumel*] of its products so that [*damit*] it may tear itself to pieces and annihilate itself in empty nothingness."²⁵

For Buddha human existence is a dissipative system, a blazing fire; it is likewise a dissipative system for Heidegger as *Wirbel, Sturm,* and *Taumel*.

deisem rätselhaften Wesen die Philosophie geschieht.

²⁰ See generally P. W. Atkins, The Second Law (1987, 2nd ed. 1994); and Eric D. Schneider and Dorion Sagan, Into the Cool: Energy Flow, Thermodynamics, and Life (2005). For nitty-gritty detail see N. O. Rennó, M. L. Burkett, and M. P. Larkin, "A Simple Thermodynamical Theory for Dust Devils," 55 Journal of the Atmospheric Sciences 3244 (1998).

²¹ Sein und Zeit § 38, 175. In ihnen und in ihrem seinsmäßigen Zusammenhang enthüllt sich eine Grundart des Seins

der Alltäglichkeit, die wir das **Verfallen** des Daseins nennen.

²² *Id.* 178. On whirlpools (eddies) as dissipative systems see J. Scott Turner, *The Extended Organism: The Physiology of Animal-Built Structures* (2000) 3-6. Raise your own pet *Wirbel*: https://www.wikihow.com/Make-a-Tornado-in-a-Bottle. The two-bottle case "is a graphic example of the superior effectiveness of cyclical gradient reduction. . . . The gravitational (potential) energy gradient is degraded not by a simple structure but by a highly complex one – 100 billion trillion water molecules spontaneously interact to form a twirling tunnel. Our cultural heritage . . . leads us to assume that the quickest route from point A to point B is a straight line. But the Tornado in a Bottle's most effective way to go from full to empty is by way of a whirlpool—a complex, cycling structure that would never be expected on the basis of random positions of water molecules." *Into the Cool* 131-132.

²³ *Beina and Time* 167.

The Fundamental Concepts of Metaphysics: World, Finitude, Solitude (tr. William McNeill and Nicholas Walker 1995) 7. Wir fragen erneut: Was ist der Mensch? Ein Übergang, eine Richtung, ein Sturm, der über unseren Planeten fegt, eine Wiederkehr oder ein Überdruß den Göttern? Wir wissen es nicht. Aber wir sahen, daß in

²⁵"Overcoming Metaphysics" sec. III, p. 87 in *The End of Philosophy* (tr. Joan Stambaugh 1973). *Dem Menschentum der Metaphysik ist die noch verborgene Wahrheit des Seins verweigert. Das arbeitende Tier ist dem Taumel seiner Gernächte überlassen, damit es sich selbst zerreiße und in das nichtige Nichts vernichte.*

Gombrich describes Buddha's view of consciousness as like fire "in that it is an appetitive process." Katherine Withy describes Heidegger's view of being "as dynamic, as something that happens or is in process." She writes:

"Heidegger uses the term 'Dasein' to pick us out as being (Sein) there (da), where by 'there' or 'da' Heidegger means what we might call the space of intelligibility or meaningfulness. Calling us 'Dasein' thus names us as entities who essentially make things intelligible or who dwell in a meaningful world. Dasein is the entity that understands being. The story that we tell about Dasein is thus not a story about agency, consciousness, animality, or divinity, but a story about sensemaking."²⁶

Sense-making is an appetitive process; as Withy puts it, "We are essentially erotic creatures . . ." The Platonic ἔρως of Symposium is generalizable, as Artistotle did generalize it, to ὄρεξις, 'grasping at' – "all human beings by nature lunge for [ὀρέγονται] knowledge."²⁷ "general word for all kinds of appetency, conation" (LSJ) - can mean 'hunger,' 'desire;' therefore the correlative of Buddhist tanhā/tṛṣṇā, 'thirst,' 'craving.' The very thing the Second Noble Truth asserts to be the archē of dukkha. So Withy completes her thought, ". . . whose lives are unstable, risky, and subject to breakdown."²⁸

Heidegger's name for this essential appetency is Sorge, 'care.' In lectures he delivered not long before he wrote down Being and Time Heidegger tells his students that care "is the term for the being of Dasein pure and simple. It has the formal structure, an entity for which, intimately involved in its being-in-the-world, this very being is at issue." Care, the basic mode of being of human existence, "is always a being about something, specifically such that Dasein in concern, in every performance, in every provision and production of something in particular, is at the same time concerned for its Dasein." 29

"This being out for its own being, which is at issue for it, always takes place already in being involved in something, from a being-always-already-in-theworld-involved-in. . . . The structure of 'being out for something' [Auf-etwasaus-sein] . . . brings with it the phenomenon of not yet having something which I am out for. This phenomenon of not yet having something which I am out for is called being in want [das Darben oder die Darbung]. It is not merely a pure and simple objective not-having of something that I am out for. It is what first

²⁶ Katherine Withy, *Heidegger On Being Uncanny* (2015) 115, 70. For Heidegger 'to understand' is to take something as something: entwerfen etwas auf/als etwas. Cogitation is only one mode of sense-making; sensemaking is doing – using, patching, repairing, nurturing, augmenting, repurposing – taking something as something and then as something else; "they sewed fig leaves together and made themselves aprons;" apron-making is sense-making.

²⁷ First line of *Metaphysics*: πάντες ἄνθρωποι τοῦ εἰδέναι ὀρέγονται φύσει. 980a.

²⁸ Heidegger on Being Uncanny 36.

²⁹ History of the Concept of Time: Prolegomena (tr. Theodore Kisiel 1985) 294, 295.

constitutes being-in-want, lack, need [die Darbung, das Entbehren, das Bedürfen]." 30

The basic structure of care is lack-in-being; in the term from *Being and Time, Schuldigsein*. Dasein is like home without Plumtree's Potted Meat: incomplete. Thus *unheimlich*.

Its systemic incompleteness is integral to the process that is Dasein, as Thomas Sheehan demonstrates in Aristotelian terms³¹ and Withy shows through Heidegger's notion of *Unheimlichkeit*, 'uncanniness.'

Heidegger's "Higher than actuality stands *possibility*" formally indicates the ontological gradient. Dasein is the process doing its utmost to reduce this gradient by 'presencing;' making actual, practical, functional sense of possibilities. This sense-making process builds and maintains the system Heidegger calls 'world,' meaningfulness, significance, *Bedeutsamkeit*; *Dasein ist weltbildend*. Dasein is the process which continuously metabolizes possibility into world.

(Putting it that way risks the misportrayal of 'possibility' as something apart from us out there in nature which Dasein appropriates, as in the fiction of the preexistent ecological niche.³³)

It was an achievement of twentieth century science (building especially on the work of Gibbs) to show that there is no thermodynamically principled difference between non-living dissipative systems – fires, whirlpools, etc. – and the metabolism of organisms. In reducing energy gradients metabolic processes show up as more or less persisting structures.

So the physical chemist Peter Atkins observes that "All our actions, from digestion to artistic creation, are at heart captured by the essence of the operation of a steam engine." "All our actions" includes our sense-making, world-building. Like the poets of the Rg Veda with respect to fire Atkins finds no boundary between what is to be taken literally and what is not with respect to dissipative systems: everything about a dissipative system is ultimately the result of its reduction of energy gradients.

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³⁰ Id. 295.

³¹ Thomas Sheehan, "Dasein" in *A Companion to Heidegger* (ed. Hubert L. Dreyfus and Mark A. Wrathall 2007).

³² Sein und Zeit 38. Höher als die Wirklichkeit steht die **Möglichkeit**.

Richard Lewontin to David Sloan Wilson: "I think it is extremely important to go to a fundamental issue, which is organisms create their own environments. All organisms make their niches. The whole notion of ecological niche is a very bad notion. There are no niches without organisms. This notion that there is a hole in the world that the organism evolves to fill [is wrong]. The organism by its evolution changes the conditions of its life and changes what surrounds it. Organisms are always creating their own hole in the world, their own niche. [Dasein ist weltbildend.] . . . If I could convince people to use that notion of niche, not as a fixed thing, but as something that is manufactured by the organism, I would be very very happy." https://evolution-institute.org/the-spandrels-of-san-marco-revisited-an-interview-with-richard-c-lewontin/ (2015). See also Richard Lewontin, The Triple Helix: Gene, Organism, and Environment (2000) 47-51.

³⁴ Peter Atkins, *The Laws of Thermodynamics: A Very Short Introduction* (2010) 38.

The founding insight of thermodynamics was Sadi Carnot's recognition that the essence of the operation of a steam engine is the **difference** in temperature between a hot source and a cold sink. "The production of motive power," Carnot wrote, "is then due in steam-engines not to an actual consumption of caloric, but *to its transportation from a warm body to a cold body* . . . According to this principle, the production of heat alone is not sufficient to give birth to the impelling power: it is necessary that there should also be cold; without it, the heat would be useless." ³⁵

For consider, Carnot asks, what would happen if the source and sink were the same temperature? **Nothing** would happen. "If we should find around us only bodies as hot as our furnaces, how can we condense steam? What should we do with it if once produced? We should not presume that we might discharge it into the atmosphere, as is done in some engines; the atmosphere [by hypothesis as hot as the furnace] would not receive it. It does receive it under the actual condition of things, only because it fulfils the office of a vast condenser, because it is at a lower temperature; otherwise it would soon become fully charged, or rather would be already saturated [with caloric]." 36

No-gradient entails stasis; however *Partout où il existe une différence de température, partout où il peut y avoir rétablissement d'équilibre du calorique, il peut y avoir aussi production de puissance motrice.*

Joanna Jurewicz points out that the stasis of ontodynamic equilibrium was the predicament of Prajāpati – a Vedic name for the Creator – before the Creation. Jurewicz's purpose is to look at the Buddhist doctrine of dependent origination from the perspective of earlier Vedic thought. "On the most general level," she writes, "the Vedic cosmogony and the *pratītyasamutpāda* describe the creation of the conditions for subject-object cognition, the process of this cognition, and its nature, which, in both descriptions, is represented by the image of fire." She then goes through the links of dependent origination and shows that Buddhism has taken and repurposed each of them from Vedic creation-imagery: "It seems that the Buddha chose those cosmogonic descriptions which met two conditions: first, they explicitly express the

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³⁵Reflections on the Motive Power of Heat ([1824] ed. tr. R. H. Thurston 1897) 1, 46.

³⁶Reflections 46-47. Caloric, like svabhāva, turns out to be an unnecessary hypothesis.

The dozen links in the chain of dependent origination play the role of Heidegger's existentials. Jurewicz says that in formulating the *pratītyasamutpāda* Buddha accepted the Vedic lore of *ātman*'s transformations yet repurposed their meaning "so as to make them denote the process of human entanglement in empirical existence [sc. openedness to being, being-in-the-world]. This process is deprived of any absolute grounds that could serve as its justification . . ." Process, yes; *ātman*, no; *svabhāva*, no. Joanna Jurewicz, "Playing with Fire: The *pratītyasamutpāda* from the perspective of Vedic thought," 26 *Journal of the Pali Text Society* 77 (2000); repr. in *Buddhism: Critical Concepts in Religious Studies, Vol.* 1 (ed. P. Williams 2005) 169, 170. I quote from the reprint.

38 *Id.* 170. The Vedists were Cartesians? And the Buddhists went along with it?

cosmogony as the transformations of the $\bar{a}tman$; second, they preserve their cognitive meaning [function in cognition], even if they are taken out of Vedic context."³⁹

Prajāpati's predicament is the total symmetry designated by the Rgvedic *Nāsadīya*, which "describes [the pre-Creation] as the state in which neither *sát* nor *ásat* exist;" meaning "not only that neither being nor non-being exists in the pre-creative state but also that it is impossible to assert whether anything exists or does not exist. It is a state of total inexpressibility."⁴⁰

Thereupon occurs the primal symmetry-breaking, in Derrida's phrase a "differing from itself": "When the Creator asserts the absence of anything other than himself and his inability to cognize, the wish or desire for the presence of a 'second' appears in him. In BU [Bṛhadāraṇyaka Upaniṣad] 1.2.1 this wish is expressed in the formula ātmanvī syām, because 'the second' is identical with the Creator, in other words, 'the second' is his own ātman." ⁴¹

Which brings us back to the notoriously vague *samskāra*. Jurewicz writes:

"This cosmogonic Creator's wish to create the ātman is sometimes expressed in ŚB [Śatapatha Brāhmaṇa] by the subjunctive form of the verb sam [συν-] vkr ['make,' 'do;' the root in 'karma'] (with or without abhi [a preverb]). Here, Prajāpati wants to build himself (ātmānam) in the form of a fire altar, which is his body and the cosmos at the same time. He exudes from himself his eating (subjective) and eaten [edible?] (objective) parts. Then, he devours food with his eating part. Thus, Prajāpati builds himself up (ātmānam abhisaṃskaroti), which is a natural consequence of eating."

The force of *abhisaṃskaroti* as 'puts together, compounds,' accords with Rusza's reconstruction of the original meaning of *saṃskāra-duḥkhatā* as the *dukkha* of compoundedness, of *synkrasis*.

Creation was an irruption (*Einbruch*) into the total symmetry of pre-Creation – irruption of the possibility of being other than Prajāpati; and by virtue of the breach a craving for that possible 'other being.' Jurewicz cites ŚB 2.2.4, which recounts that "Prajāpati alone, indeed, existed here in the beginning. He considered, 'How may I be reproduced?'" When he reproduces himself he reproduces 'How may I be reproduced?' and thereby sets in motion a cosmos that reproduces itself in devouring itself. For Prajāpati "generated Agni [*ignis*, fire] from his mouth; and because he generated him from his mouth, therefore Agni is a consumer of food: and, verily, he who thus knows Agni to be a consumer of food, becomes himself a consumer of food." Prajāpati then considered, "In that Agni I have generated a food-eater for myself; but,

⁴⁰ Ibid.

³⁹ *Id.* 171.

⁴¹ *Id.* 172.

⁴² Ibid.

⁴³ https://www.wisdomlib.org/hinduism/book/satapatha-brahmana-english/d/doc63157.html

indeed, there is no other food here but myself, whom, surely, he would not eat." "Thereupon Agni turned towards him with open mouth; and Prajāpati being terrified, his own greatness [speech] departed from him."⁴⁴

Jurewicz cites also the variant at BU 1.2.1-5: "In the beginning there was nothing here at all. Death alone covered this completely, as did hunger; for what is hunger but death? Then death made up his mind: 'Let me equip myself with a body (ātman)'." Death plays the part of Prajāpati and creates a second self (ātman) by which he gives birth to "this whole world, to everything that is here;" and "He began to eat whatever he gave birth to," so that "When someone comes to know the name and nature of Aditi in this way, he becomes the eater of this whole world, and the whole world here becomes his food." Comes to know that firelike deathlike Dasein devours the whole world through its world-building.

At the conclusion of the lecture course *Fundamental Concepts of Metaphysics* Heidegger utters his 'ode to possibility,' "the look into the light of a possible making-possible in general [Lichtblick ins Mögliche-Ermöglichende überhaupt]":

"The look into the light tears darkness as such along with it, gives the possibility of that dawning of the everyday in which at first and for the most part we catch sight of beings, cope with them, suffer from them, and enjoy ourselves with them [das Seiende erblicken, es bewältigen, daran leiden, uns daran freuen]. The look into the light of the possible makes whatever is projecting open for [macht das Entwerfende offen für] the dimension of the 'either/or', the 'both/and', the 'in such a way', and the 'otherwise', the 'what', the 'is' and 'is not'. Only insofar as this irruption [dieser Einbruch] has occurred do the 'yes' and 'no' and questioning become possible. The projection [das Entwurf] raises us away into and thus unveils the dimension of the possible in general, and what is possible is in itself already articulated [sich gegliedert] into possibly 'being in such a way or otherwise', into the possibility of 'being or not being'."⁴⁶

For our openedness-to-being **everything** is already articulated as "being in such a way or otherwise" and therein as resource for repurposing. The later Heidegger expressed abhorrence at modern human beings' taking the Earth as "a giant gasoline station." But some such, if not inevitable, was surely the heading of our movement since we began to use fire.⁴⁷ Access to "the dimension of the possible in general" extends the range of omnivory commensurately.

⁴⁶ The Fundamental Concepts of Metaphysics 364-365.

⁴⁴ As when Arjuna asks Kṛṣṇa to 'show me the real you' and the sight stuns him speechless and trembling; for to Arjuna is revealed the fanged and fiery maw which is the Universe. And, well, *tat tvam asi*.

⁴⁵ Olivelle, *Upanişads* 7-8.

⁴⁷ "from the moment/ the first flint was flaked this landing was merely/ a matter of time." W. H. Auden "Moon Landing" (1969).

Sheehan comments that "Heidegger's term for any concrete, personal instance of hermeneutical openedness is Dasein, whereas his precise word for the 'essence' or ontological structure of any concrete, personal ex-sistence is *Existenz* or *Da-sein* (usually hyphenated, but Heidegger is not always consistent). . . . The distinction between ex-sistence as personal and ex-sistence as structural is supremely important. The first refers to any one of us as living ahead in a range of concrete possibilities, whereas the second refers to our very essence as possibility." 48

Withy, following John Haugeland, expresses this distinction by saying we are individually 'cases' of Dasein, where 'Dasein' "refers to *making sense of things*, and it picks us out as such events. Each of us is a case of this sense-making; I *am* an ongoing exercise of making intelligible."

Heidegger marks the distinction most vividly with his phrase "the Dasein in human being," das Dasein im Menschen. "The Dasein in man," he writes, "determines him as that being which, being in the midst of beings, comports itself to them as such . . . The unity of the transcendental structure of the innermost neediness of the Dasein in human beings [der innersten Bedürftigkeit des Daseins im Menschen] has been given the designation 'Care'." Of the Dasein im Menschen he remarks that this essence, Wesen, is nichts Menschliches — nothing human. ⁵¹

Richardson commented that the prerogative of human existence, the privilege of making sense of its thrown situation, "hides within itself a need of its own, i.e. the need for continued comprehension [taking-as, synthesis of meaning] in order that it be itself, therefore in order to exist. This internal indigence of [Dasein], grounded in finitude, is the innermost core of its dynamism."⁵²

The "innermost core of its dynamism," this "nothing human," is the ontological correlate of cold. The difference between hot and cold drives all thermodynamic process. "Chemical reactions, processes in which one substance changes into another, are no more than elaborate forms of cooling." Human existence, sense-making, is ontodynamic metabolism arising within and from thermodynamic metabolism; human existence is a complicated form of cooling.

As Atkins says "A steam engine, in its actual but not abstract form, is an iron fabrication, with boiler, valves, pipes, and pistons. The essence of a steam engine, though, is somewhat simpler: it consists of a hot (that is, high temperature) source of energy, a device—a piston or turbine—

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⁴⁸ Making Sense of Heidegger 136.

⁴⁹ Heidegger on Being Uncanny 70-71.

⁵⁰ Kant and the Problem of Metaphysics (rev. enl. 5th ed. tr. Richard Taft 1997) 164, 165.

⁵¹ Dieses Wesen ist nichts Menschliches. Martin Heidegger, Nietzsche. Volume IV: Nihilism (ed. David Farrell Krell, tr. Frank A. Capuzzi 1982) 232-233; "On the Question of Being," in Pathmarks (ed. tr. William McNeill 1998) 300.

⁵² William J. Richardson, S.J., *Heidegger: Through Phenomenology to Thought* (1963) 38.

⁵³ The Second Law 107.

for converting heat into work, and a cold sink, a place for discarding any unused energy as heat."⁵⁴ A steam engine in its abstract form is composed of a hot source, a converter, and a cold sink.

The 'hot source' for a sense-making engine is, as Heidegger showed, possibility. On this planet anyway the converter is human being, der Mensch, with all its technologies for turning possibility into Welt. The cold sink is "the Dasein in human being;" the abyss of indigence, Sorge, Bedürftigkeit, erōs, orexis, tanhā. Dasein is openedness-to-being with jaws agape.

Yet even assuming this mechanical sketch plausibly falls within some ballpark, the underlying question is how did *Sorge/tanhā* come to be? (An unbuddhist question.)

Heidegger again provides the clue. "One thing is clear: we cannot say that the organ has capacities, but must say that the capacity has organs."55 This claim is all of a piece with the Dasein-analysis. If individual human beings are rightly understood as concrete, personal instances - cases - of Dasein then can they not also be taken as organs of the capacity of hermeneutical openedness, sense-making? And sense-making, in turn, as an organ of the capacity 'life'? And life as an organ of entropy's capacity to 'strive' to a maximum? 56

Heidegger spends little time on the difference between life and non-life – most of the effort is directed at distinguishing human beings from animals. When he does distinguish living things from non-living he does so in terms of existentials: "Even a vegetable lives its not-too-bright life in terms of an end-for-which [Wozu];"57 and

"A stone never finds itself [befindet sich nie] but is simply on hand. A very primitive unicellular form of life [ein ganz primitives einzelliges Lebenwesen], on the contrary, will already find itself [wird sich schon befinden], where this disposition [diese Befindlichkeit] can be the greatest and darkest dullness, but for all that it is in its structure of being [der Seinsstruktur] essentially [wesentlich] distinct from merely being on hand like a thing."58

Not quite twenty years later Schrödinger – in Dublin sheltering from the Nazis – was asking, "What is the characteristic feature of life? When is a piece of matter said to be alive? When it goes on 'doing something', moving, exchanging material with its environment, and so forth, and that for a much longer period than we would expect an inanimate piece of matter to 'keep going' under similar circumstances."59

⁵⁴ The Laws of Thermodynamics 38-39.

⁵⁵ Fundamental Concepts of Metaphysics 221. Es wird deutlich: Wir dürfen nicht sagen, das Organ hat Fähigkeiten, sondern die Fähigkeit hat Organe.

⁵⁶ Die Entropie der Welt strebt einem Maximum zu. Rudolf Clausius.

⁵⁷ Logic: The Question of Truth (tr. Thomas Sheehan 2010) 129.

⁵⁸ History of the Concept of Time 255.

⁵⁹ Erwin Schrödinger, What is Life? The Physical Aspect of the Living Cell ([1944] 1967) 74.

In a word Schrödinger did not use, 'allostasis.' Life's *Seinsstruktur* is the capacity to persist through change by means of change. In the course of its persistence life has developed many organs, organisms themselves, in the service of its persistence; every organism is a thermodynamic organ of that capacity. "For as long as it persists," Turner writes,

"an organism . . . modifies energy flowing through it . . . An organism's persistence comes from the tangible boundary separating it from its environment. Even though it seems quite solid, an organism's outer boundary is actually very permeable, allowing a steady stream of matter and energy to pass continually through it. But the boundary is not passively permeable, as a sieve would be. Rather, it exerts adaptive control over the flows of matter and energy across it. . . . Turn down the potential energy driving matter and energy through an organism, and the organism will alter the nature of the boundary separating it from its environment so that it can maintain that flow. It is not the boundary *itself* that makes an organism distinctive, but what the boundary *does*. In other words, the boundary is not a thing, it is a *process*, conferring upon the organism a persistence that endures as long as its boundary can adaptively modify the flows of energy and matter through it." 60

Bacterial *Befindlichkeit* and botanical *Wozu*, like all existentials, are organs of the capacity of allostasis. The *Wesen* of the capacity is 'more!'; more of this persisting, 'keep going,' 'go on.' 'More!' manifests in human being as *Sorge*, taṇhā.

Saṁskāra-duḥkhatā is then the ash accumulating from the metabolism of possibility into actuality. Complementary therefore to Heidegger's 'ode to possibility' would be, for example, Beckett's 'ode to regret':

"Personally of course I regret everything. Not a word, not a deed, not a thought, not a need, not a grief, not a joy, not a girl, not a boy, not a doubt, not a trust, not a scorn, not a lust, not a hope, not a fear, not a smile, not a tear, not a name, not a face, no time, no place . . . that I do not regret, exceedingly. An ordure, from beginning to end." 61

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⁶⁰ The Extended Organism 5.

⁶¹ Samuel Beckett, *Watt* (1953). In terms of the taxonomy of the Greater Discourse on the Destruction of Craving (*Mahātaṇhāsankhaya Sutta*) we can say regret is the ash characteristic of a dung-fire; in contemporary idiom, a dumpster-fire.