Johnny Golding
Synthetic Life: The Thinking Bot's Guide to the Universe

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> Wire telegraph is a kind of a very, very long cat. You pull his tail in New York and his head is meowing in Los Angeles. Do you understand this? Radio operates exactly the same way: you send signals here, they receive them there. The only difference is that there is no cat. People like us, who believe in physics, know that the distinction between past, present, and future is only a stubbornly persistent illusion.
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> Albert Einstein.

1.

synthia (or how the real world at last became a myth): On May 20, 2010 an announcement by the J Craig Venter Institute in Rockville Maryland heralded the generative birth of the first man-made, single-cell organism, which they duly named 'Synthia' (with an 's'). It had been sequenced from the genetic code of *Mycoplasma genitalium*, the world's smallest living bacteria, found primarily in cattle and goats.[2] Global reports

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[2] http://www.telegraph.co.uk/science/7745868/Scientist-Craig-Venter-creates-life-for-first-time-in-laboratory-sparking-debate-about-playing-god.html (accessed

flooded over the web and other communication technologies, describing in lurid detail how the 'natural' DNA of the *Mycoplasma genitalium* was stripped out from its cell, copied point for point, re-sequenced, imprinted with a watermark, uploaded into its bio-original as an artificial – that is to say, synthetic, life form. It was considered a '*LIFE* form' because this new (artificial) cell, now, and without any of its 'natural' bio-matter, began to replicate bio-logically. And while it is true that this replication (and what it produced) might not be seen quite at the same level as when Dr Frankenstein's Monster's finger trembled as a sign of life on his laboratory table – this replication held all the same terrors/jubilations /ethical conundrums – and promises—of that 19th century shout: "IT'S ALIVE! IT'S ALIVE!"

In the beginning, you see, there *was* the Word. And that word was: Synthia.

2.

complexity. The important point about Synthia is not that – or not just that – 'she' would be heralded as a monster in single-cell form. It is not even that her emergence, or for that matter, the emergence of bot-learned decision making, augmented realities, dark matter, the uses and abuses of Dolly and her cloned sisters before her, 'always already' put into question the very nub of what constitutes a 'she', not to mention the very meaning of being 'alive' and whether one should or should not play Creator. It also put into sharp relief the very ontologies through which one might grasp this most modern of post-postmodern conditions. For this seemingly innocuous little event generically called Synthia was in fact a paradigmatic sea-change, a grounding event birthing a certain kind of knowledge system, whose very meaning, indeed whose origins (if this be the right word) would emerge less from the semiotics of signs and signifiers, phalluses and lacks, and more from a simple re-iterative algorithmic cogency, a simulacra deeply coded in the she-wolves of myths and founding civilizations.

This deeply superficial heterologic 'knowledge system event', fractal in nature, infinitely regressive, and aggressively successful in its *virility* to *make* meaning 'take' place, births/invents complexity as eternally

returning simulacra, without ever getting beyond, beside or inside 'herself'. It is a whole new soaring, this multiply inhabited single-celled will to power, this newborn Zarathustra, forging a slice-minutiae of expression with no absolute roadmap, marker, or destiny. Deleuze pre-guessed this move as a 'reverse Platonism', a kind of simulacrum of sense (Deleuze, *The Simulacrum*, 254-56). Lyotard shaped it as figural; that is, as a kind of "lesson in darkness, like the paintings of a blind man" – the very gesture required to make imagelessness gather momentum, materiality and, in its wake, come alive. (Lyotard, *Leçon de Ténèbres* 31; Lyotard *Discourse, Figure* 353).

3.

ana-materialism (dimension). The usual culprits of time and space (or time as distinct from space and vice versa), along with identity, meaning, Existenz, Being, reconfigure via a relational morphogenesis of velocity, mass, and intensity. This is an immanent surface cohesion, the compelling into a 'this' or a 'here' or a 'now', a *spacetime* terrain, a collapse and rearticulation of the tick-tick-ticking of distance, movement, speed, born through the repetitive but relative enfolding of otherness, symmetry and diversion. (Cox & Foreshaw 57, 71-2; Mandelbrot

Fractal Geometries, 6-24). This cohesive slice, this dimension, must be understood in the strongest temporal/spatial sense of difference as 'altogether different', fourth dimensionally different. It names a kind of 'being-with-altogether-different' difference as an ana-materiality – neither material nor non-material – which, despite (or because of) this apparent paradox, reiteratively resembles and re-assembles platforms, planes, plateaus, surfaces as de-territorialised plural or multiversal singularities into the 'being-with' singular plural as Nancy would name it, of an 'inoperative community' fractal in nature, immanent in design, and perfectly repetitive in its bio-logic enfoldment. (Nancy *Being Singular Plural* 2-5 and Nancy *Inoperative Community* 19, 53; Marks 5-11; 163-65).

Distant cousin to the fragment, which can be distinguished by its relation to a concentrated 'whole' or 'totality' (as in a piece of a pie, ¼ of a 1, a thesis/antithesis of a synthetic unity and so on), this 'slice', this surface ana-material dimension, with no underlying structure or Archimedean point, pre-figures the figural as the presencing of the event so nonchalantly called 'Synthia' herself. She becomes both chronological sequence of an 'a-to-b-to-c' etc and an Aionic series of the-whatever-is,

morphing to the-whatever-else, morphing to the whatever-works, cohesively held together by the relativity of its attraction (=). Deleuze admits this move as 'the inclusion of the senses' – its colour, its rhythm, its beat, indeed, tactility itself (touch, smell, taste), which enables expression to 'come alive' (*The Logic of Sense;* 169-174; 181).[3] It's rather like the exposure of a spy having infiltrated an incorporeal body-system, a kind of secret agent without the agency swimming around in the realm of an aggressively frameless narrative. But here I am getting ahead of the story (the story of thinking, imagination, art).

4.

from meta to zeta (fractal philosophy). Of course there are many types of 'synthetic unities', each perfectly capable of igniting the Trojan horse problem whereby uninvited methodological assumptions and onto-theological conundrums can unknowingly or unwittingly be dragged into the picture. So when one pinches the use of Mandelbrot's fractal move, and in particular, his invention of the well-known formulation Zeta $\rightleftharpoons$ $Z^2 + C$, it may be that our more detailed picture of Synthia is not without

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[3] Further elaborated in detail in Deleuze (1990) "Twenty-Third Series of the Aion", "Twenty-Fifth Series of Univocity" and "Twenty-Sixth Series of Language," pp. 162-67169-174; and 181-182, respectively.

its Trojans. For the re-iterative ana-materialist dimension/slice of reality she embodies; a kind of 'dry dream' version of Nietzsche's more sensuously wet 'eternal return', our Synthia may become both the wild child, always already 'greater than the sum of her parts' and, simultaneously, a rather dull minutiae of her presence. But this move, away from the univocity of the metaphysical Concept toward the multiversal logic of what can be called 'fractal philosophy', however problematic, is long overdue. For the problem with Metaphysics, and particularly the metaphysics of dialectical synthesis, is that it simply does not work; it simply does not have the tools to address our post-postmodern Synthia.

This is not to say that, after two thousand years, the various sets of epistemological and methodological gifts falling under this wide umbrella called 'metaphysics' could be seen as anything other than complex and elegant. This is particularly true of the analytic gifts by Hegel, which, albeit have been challenged by a host of scholars including most significantly Adorno in his *Negative Dialectics* not to mention Marx in his *Poverty of Philosophy* and elsewhere, developed one of the most sophisticated encyclopedic logics on contemporary (that

is to say, modern, life) which put at its root the fundamental position of uncertainty and change without getting 'outside' the system. He did this in part by way of a subtle positioning of negation, one that was established in such a way that allowed for synthetic reason and with it, synthetic unity to express at its very core, the process of becoming/ immanence/ transcendence. (Hegel: *The Phenomenology* §1-12, §16-20, §73-85; §148; §159-163). But, however sophisticated these moves, the dialectical system did this by privileging an abyssal present; that is, one which could never be 'inhabited' analytically, politically, aesthetically, ethically, algorithmically or otherwise. This is because not only did 'the now' slip away as soon as one tried to grasp it; but the very 'territory' of the present resided in the deep cut/ excluded middle of logical contradiction, the totality of which, in producing the kind of 'synthesis' that it did, could only point to grand narratives, as the grounding of its Truth.[4]

With the move toward fractal philosophy, especially via Mandelbrot's 'set', the present is precisely what is inhabited. A kind of dot in the

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[4] For a more detailed explanation, see in particular: S. Golding, *Fractal Philosophy and the small matter of learning how to listen: Attunement as the Task of Art,* in S. O'Sullivan and S. Zepke, **Deleuze and Contemporary Art**, (Edinburgh Press: 2010). An online version is available via Kroker and Kroker, **Code Drift,** c-Theory http://www.ctheory.net/articles.aspx?id=634

hourglass of life, with the future, the past, and the elsewhere gathered via economies of circulation, planes of immanence or dimensional surface slices, the present emerges as the paradigmatic iteration of 'Zeta'.[5] It is posed as the unsayable-something-of-whatever-that-is replicating 'herself' via an infinite feedback sequencing loop of $Z \rightleftharpoons Z^2 + C$. This sequence-ing creates pattern; the pattern re-loops to create 'synthetic unity'; the process is repeated. It is a process found throughout nature; it is in every pattern of growth; it is at the basis of artificial intelligence, and how robots 'learn'. It is what Lyotard names the 'affirmative Zero' (Lyotard *Libidinal Economy:* 5,6) that is, an active morphogenesis; an active the reiteration of synthetic unities, which, on May 20, 2010 at 4.30 in the afternoon created 'life'.

5.

what is called 'thinking' (bot version). We stand in, or, more precisely, at, the reckoning. Caught in mid-run, whilst on the run, this 'standing' defies thinking whilst simultaneously encoding it (thinking) at the very iteration of its repeatability. A number of consequences follow. The most significant one for our purposes here is that thinking takes on a whole

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[5] A useful guide for novices to Mandelbrot's work can be found at
http://www.ddewey.net/mandelbrot/

new end-game-as-mid-game. In this move, the obvious, lay, sense of thinking as 'mind' or 'spirit' or 'contemplation' is immediately jettisoned. Instead, there is a return to Heidegger's provocative claim that what constitutes 'thinking' is, at the very least, an active move toward non-representational dwelling. That is, to paraphrase Heidegger, a leap away from representation, which has served only to blind 'rational man' through an over-reliance on observation, deduction, and neatly placed observational scientistism. (Heidegger *What is Called Thinking* 3-19; 39).

So what would Hegel's 'rational man', now, having leapt into non-representational dwelling, make of his encounter with our warrior princess, Synthia? For make no mistake about it: it is only a matter of time when programmable learning will slip-slide into judgments, and our Turing Machine of tomorrow might well desire something more daring than ice cream with a cherry on top.

6.

enfoldment (squaring – or rather 'folding' – the circle). With this

infinitely encoded shift to iteration, and its new forms of 'immaterial'

/materialized 'it-selves', not only is the very notion of learning and

therewith, judgment, put into question, but so too is aesthetic

comprehension, political agency. What is elsewhere named as the ana-

representational, 'aural' or 'sonic' economies, a shifting away from

representational thinking, Laura Marks (2010) names *enfoldment,* a

"new kind of access to the invisible – whether spiritual, historical, social

or political." (Marks, 3, 4-11).[6] Brought on by this loose canon 'the

digital or media arts age', there is a shift away from representational

presencing of a 'world as picture' to the (im)material presencing of a

'world as refrain'.

Everything, from power to poetics, from colour to shade, can be (and is)

recast and called forth via the sonorous movements of rhythm, beat,

improv, pacing. Father-Time becomes the more fleeting 'timing' or, at

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[6] For 'ana-representational' see S. Golding (2009) *The Assassination of Time (or the birth of zeta-physics),* in H. Beressem / Leyla Haerkamp (Eds), Writing History/Deleuzian Events (Koln: DAAD), pp. 132-145; and her *Singular Multiplicity: the a-radical predicament [breaking the code, Part 2],* in **The Issues in Contemporary Culture and Aesthetics,** No. #10/11, (Maastricht: The Jan van Eyck Akademie, April 2000), pp. 286-292.

For works on the 'aural'/sonic economies, see S. Kennedy (2010), *A Sonic Economy* in **C-Theory**. http://www.ctheory.net/articles.aspx?id=649.

its most authoritarian, a 'sometime.' Space is simply the 'territory' that

all refrains inhabit, that is, the segmented, slice of history-presents,

which in and of itself, have no limits (edges) and admit no 'outside' or

'inside' modalities.

> "I. A child in the dark, gripped with fear, comforts himself by
> singing under his breath…The song is like a rough sketch of a
> calming and stabilising, calm and stable, centre in the heart of
> chaos. […] II. Now we are at home. But home does not pre-exist:
> it was necessary to draw a circle around that uncertain and fragile
> centre, to organise a limited space… This involves an activity of
> selection, elimination and extraction…Sonorous or vocal
> components are very important: a wall of sound, or at least a wall
> with some sonic bricks in it…One launches forth, hazards an
> improvisation. […] along sonorous, gestural, motor lines that
> mark the customary path of a child and graft themselves onto or
> begin to bud 'lines of drift', with different loops, knots, speeds,
> movement, gestures, and sonorities. These are not here successive
> moments in an evolution. They are three aspects of a single thing,
> the Refrain (*ritournelle*). […]

The role of the refrain … is territorial, a territorial assemblage."[7]

The role of the Refrain then, is both territorial and improvisational. It calls forth a reality segment, we could name, say, as '1'. This '1' emerges from some place other than the traditional zero-sum binaric Totalities of a modern/liberal-arts world. It denotes, not to mention, occupies, a critical spatiality whilst simultaneous dissipating into air. It has no weight, no volume, no 'other' to its name, but it still 'makes' sense. It names the segment, not statically, but in the beat, beat, beatings, pace, speeds of the launching forth. It is a '1' that marks out plurality as the multiple listening-gathering gestures which produce in their attunement, the 'here', right 'now'. Deleuze / Deleuze & Guattari thus present a reconditioning of 'the becoming-x', of philosophy itself: the algorithmic encodings of zeros (synthia) and ones (refrain). We might wish to call this fractal philosophy: an algorithmic hearing, a learning how to 'take note' or, in the manner of Nietzsche 'The (Synthetic) Birth of Tragedy. Deleuze simply calls it 'the task of art.'

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[7] Deleuze and Guattari, "1837: Of the Refrain," *A Thousand Plateaus*, pp. 343-344.

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roku-gaku. In 2009, Nobuyasu Sakonda and Masahiro Miwa (known as the Formant Brothers) produced *Les Tombeau Freddie (A Concept for Six Perspectives in Digital Music/ an Acoustic Realisation of L'Internationale).* They had been toiling with the 'being-with' of technology (as they called it) as something quite different than the usual renditions of 'simulation' or 'mere representation' of, in this case, voice, synaesthesia, pattern, art. They wanted instead, to create algorithmically a re-cognised synthetic voice that would effectively make present the raw 'alive-ness' of, in this case, Freddie Mercury singing the Communist International – in Japanese. It wasn't quite 'phonology' (the logic of the semantic voice) – as the logic itself was used only in the fractal assemblage of the imagined-real; it wasn't quite 'dada' despite the truncated (and yet oddly coherent) splices of image-text-voice. Indeed it wasn't anything that had come before; so they gave it a new name called, quite simply: roku-*gaku*, the being-with/being-there of the logic of 'techne' to grasp and pull together into an inhabitable present the 'that which lays to hand'.

It is a glimpse into the future, where the cherry has been plucked – at least in Japanese, and according to the voice of Freddie Mercury.

http://www.youtube.com/watch?v=hkfrU-EOQ-E

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It is a delicate game we are playing, after all.

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