Ian Cheng, *Emissary in the Squat of Gods*, 2015, live simulation, sound, indefinite duration.

HERMETIC ENGINEERING

BEN VICKERS ON THE ART OF IAN CHENG

Our best machines are made of sunshine; they are all light and clean because they are nothing but signals, electromagnetic waves, a section of a spectrum, and these machines are eminently portable, mobile—a matter of immense human pain in Detroit and Singapore. People are nowhere near so fluid, being both material and opaque. Cyborgs are ether, quintessence.

—Donna Haraway, "A Cyborg Manifesto" (1985)

UNKNOWABLE SIGILS litter the landscape. This is the territory of an ancient community, a culture that drifts in a state of preconsciousness, the shamanic schizoid oblivion that was once the human condition. In Ian Cheng's *Emissary in the Squat of Gods*, 2015—an animated simulation that unfolds stochastically, not according to the intent of an author but to the ramifying whims of code, a story with events but no definitive narrative and no predetermined end—everyone hears voices. Thought, in Cheng's simulated world, takes the bifurcated form theorized by psychologist and 1970s cult figure Julian Jaynes, who argued that one-half of the human mind once spoke to the other in auditory hallucinations, giving rise to the concept of gods. These hallucinations guide the faltering bodies of the populace. It's here that the first stage of an emissary's special diplomatic mission to tame and normalize an alien world—a saga too sprawling to be contained in *Emissary in the Squat of Gods* alone—begins to unfold.

Before attempting to delve further into the cognitive planes in which Cheng's self-spawning work lives and breathes, it's necessary to set forth a set of preliminary concepts and assumptions and to describe technologies at once arcane and deterministic. While by no means exhaustive, and necessarily tailored to this text, this list highlights the key terms:

Emergence: Symptomatic of complex, almost unknowable systems, emergence is a result of simple rules and behavioral models interacting over time, giving rise to a near-infinite set of possible configurations and conditions.

Animalism: The theory that personal identity is a function of biology, and possessed by all animals, human and nonhuman alike.

Machine reinforcement learning: An evolutionary mutation in thought flowing from our development of the ability to recognize patterns; among scientists who work on artificial intelligence, the term is used to describe the process by which a series of algorithms becomes capable of improving a model by digesting and responding to the examples fed into it.

Slippery DNA: The movement of one strand of DNA relative to another, resulting in a scrambling of code, an error that, according to researchers, is "amplified" in future generations. Perhaps most clearly evidenced in the evolution of Canidae or, as we have come to know them, dogs.

iPhones and birds' nests: "If there is an ethic, it is that [the] iPhone is as natural as a bird's nest, just wrapped in a consensual social reality that allows us to not see the iPhone as a monstrous composite of rare earth material, which it also is."[1]

Ian Cheng, *Emissary Forks at Perfection*, 2015, live simulation, sound, indefinite duration.

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Attempting to unpack the way in which these methods, ways of seeing, and expressions of a world are layered, integrated, and deployed in Cheng's complex simulated environments would be a fool's errand, particularly if one wishes to build a meaningful relationship with this world's inhabitants. The work's emergent properties are impossible to witness in their entirety. A simulation is not merely a representation, or a predetermined symbolic path. *It just is*.

These markers of thought give a particular and inimitable texture to the encounter with these living simulations, the habitat-forming ecologies initiated by Cheng. The artist intentionally constructs these habitats with an anthropocentric sense of scale, time, and space, so as to ease viewers' cognitive load, acknowledging that "nature is often too fast, too slow, too big, too small for us. We desire a live simulation at scale with human space-time." Over the course of the past few years, he has produced a sequence of increasingly sophisticated live simulations, and in 2015 he debuted the first two installments of a three-part series "dedicated to the history of cognitive evolution, past and future."

In *Emissary Forks at Perfection*, 2015, on view in Cheng's current exhibition at the Migros Museum für Gegenwartskunst in Zurich, a Shiba Inu—that ancient and much-beloved breed of dog—performs the role of Emissary, which should not be conceptualized as anything like a character or identity that persists across time, but is perhaps better construed as a "ruleset." Thirty centuries have passed since a volcanic eruption eviscerated the landscape, leaving in its wake the geologic devastation writ large in *Emissary in the Squat of Gods*. Now the ecological paradise that has formed in the crater of the volcano serves as the fertile terrain for an artificial intelligence named Talus Twenty Nine, and for the Shiba Inu that Talus breeds continuously—a tranquility interrupted only by the resurrection of a twenty-first-century celebrity. As described by Cheng, these are the necessary starting ingredients for an improvised "soup," the recipe for all the dynamics and relationships that are set to emerge—a fluidity that is apparent at the Migros Museum, where a tablet-based version of *Forks* permits visitors to enter and walk around in the simulation.

But more aptly than the kitchen, we might picture an ancient laboratory of technoculture. The prosaically named Unity games engine, conceived very much within the confines of our existing prosaic reality, developed by the company Unity Technologies as a means to "democratize games development," makes available an easily accessible software platform capable of rendering an infinite number of forms and imbuing each with its own specific ruleset. These rule-bound forms may be iterated, scripted, molded, and ultimately released by developers as games or as more ambiguous types of cultural production. It should be understood that Cheng's practice is more in line with the alchemical tradition (the unpublished backstory of Newton's historic discoveries is resonant here), rather than a broken branch from later forms of magical thinking, such as chemistry or physics, the latter of which forgoes gold and searches instead for a rationalized "God particle." Transmuting and tinkering with base forms, Cheng's relationship to that which is simulated is contingent on the behavioral change he observes in matter, defying any precisely quantified metric, rewriting from the observed effects of his lines of code—unpredictable reagents for the formation of the Shiba Inu's relationship to its world, catalysts for the disruptions induced in the landscape by an "atavistic human."[2]

Shiba Emissary, born into a state of preconsciousness, is forking herself, her consciousness is rising, and each fork accelerates the potential to improve on perfection—the perfection of the Shiba's prestigious lineage. The arrival in the landscape of the anomalous twenty-first-century celebrity exacerbates the separation anxiety endemic to the breed, and escalates the ongoing slippage caused by the continual forking, executed each time without fear of death. Forking happens in nature, in the formation of multiverses; "writers simulate a thousand forking worlds on the draft[ed] page."[3] It also happens in software development, millions of developers working simultaneously to branch existing code for new purposes, forking,

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iterating, and merging, each improvement contributing to an unseen planetary-scale network, a constantly mutating system on which we all rely and feed daily. While this example—this network—represents some semblance of stability, or at least a form that may be conceptualized as determinate in a given instant, a more apt example for understanding the stabilizing force of forks would be the recent split in the core development team responsible for maintaining the entire codebase on which Bitcoin thrives and survives. A fork advocating for an increase in the blockchain size, which limits the number of transactions that can be processed by the network at a given time, was created in response to fears that failing to do so would lead to Bitcoin's demise. The rift resulting from this divergent evolution to the core software, while striving for sustainability, has engendered uncertainty that continues to threaten a market cap of $5,902,942,520.

Without consensus or even consent, though, a fork can be painful, expensive for social cohesion. It often takes the form of an ideological split in a vision of the future that software engineers are seeking to produce through the systems they build, big or small. If one fork is capable of garnering enough support, it can become dominant and occlude all alternatives, with the productive energy being rechanneled in a new direction. The original future is obliterated.

Cheng is acutely aware of this constant flux, stating: "When a local optimal state is reached, nature doesn't idealize it, she forks it." In this sense, Shiba Emissary and Talus Twenty Nine have already produced gold, simply by being vectors of indeterminacy. Cheng's emulation of Heraclitean instability is an intentional break from perfection, a collapsing of ideal forms into mutations that might be capable of producing a genuine unknown, capable of generating the Cthulhus of a simulated world.

Words of warning: One should step cautiously into this kind of knowledge work and its corresponding laboratories, in which live simulations are incubated with atavism in mind. This is Gnostic thinking, conscious of the potential of *thought forms*, or their scientific contemporary, the mirror neuron, to transmit mutations of the self, acknowledging we inhabit a world where ants coordinate using pheromones and humans coordinate according to the myths and stories we tell. That the hermetic practice of *thought forms* may be transposed so smoothly into this hard-coded environment is a testament to the emergent quality of the world that Cheng scripts.

Simulations were supposedly engineered into existence with the intention of making sense of the world or seeking some as-yet undiscovered truth, in order to study in confined quarters various systems and their contingencies. But Cheng's *live simulations* seem to take on an entirely different intentionality, one that is mindful of the potential for "a sudden pattern of feelings [to] grow inside you, with or without *you*," a recognition of interspecies dependence, and a vocabulary of cognitive gestures for coping with an all-pervasive global weirding. They conjure a crack through which various *thought forms* may be capable of escape, infection, or symbiotic grafting with one's own perception of reality.

As with the creation of all new techniques that provide godlike abilities, that rekindle our ancient Jaynesian status as beings with gods in our own minds, unknown consequences abound: the onset of genome editing, embodied simulation, AI threats of sentience, the rising Ubers of big biotech, immortality.

By activating the atavistic, Emissary performs a preemptive strike on the cultural landscape of everything you and I think we know. What we are offered is a humble simulated rehearsal that acts in anticipation of the significant biological upheaval that awaits us. Within this future-as-prologue, there are practices, methods, and reflexes of the mind that hint at the possibility of engaging the unknown on something resembling its own terms. The Chthulucene awaits us. □

"Ian Cheng: Forking at Perfection" is on view at the Migros Museum für Gegenwartskunst in Zurich through May 16.

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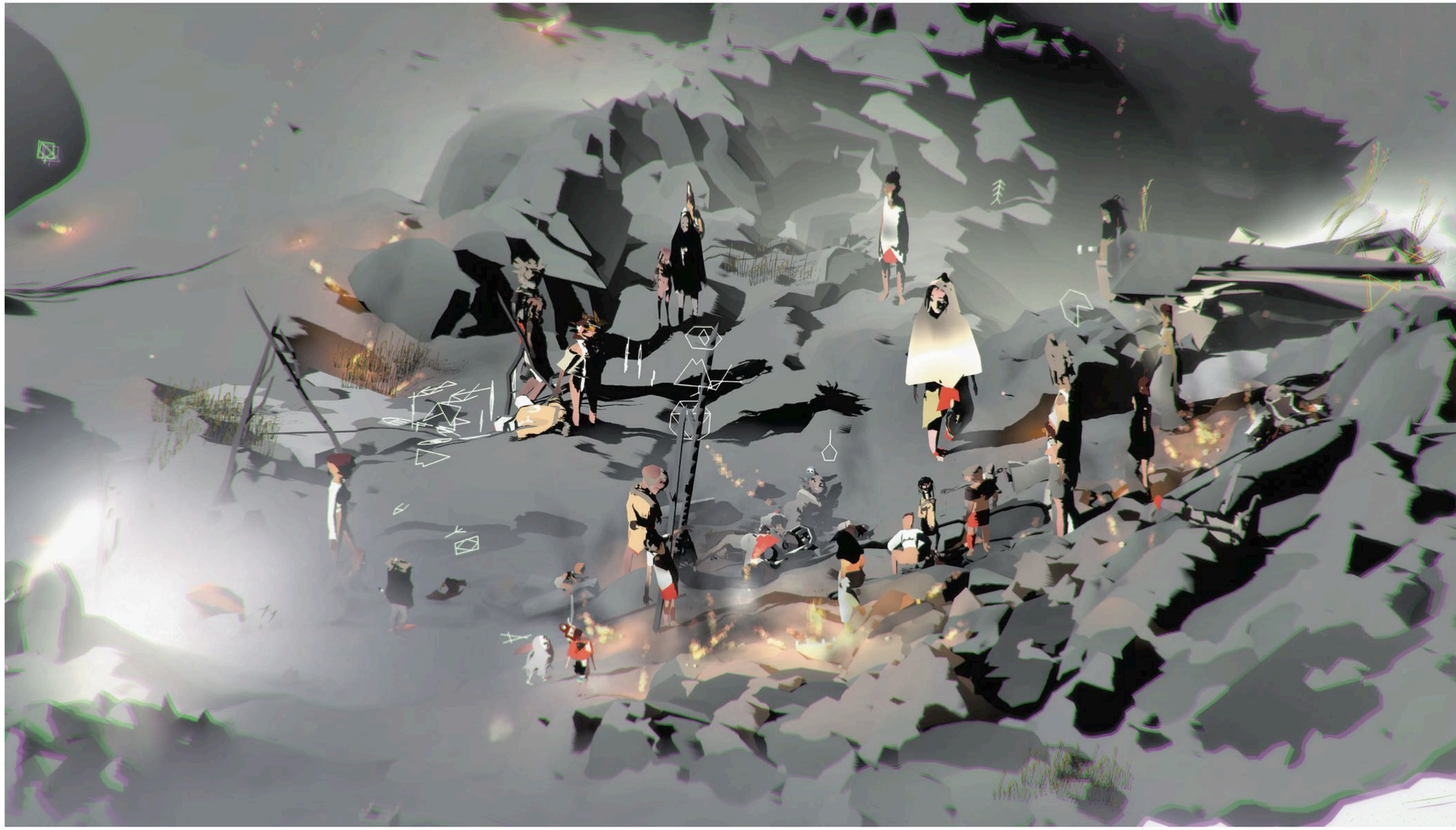
For notes, see page 298.



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NOTES

1. Elodie Evers in conversation with Ian Cheng, in *Ian Cheng: Live Simulations*, ed. Elodie Evers, Irina Raskin, and Gregor Jansen, exh. cat. (Leipzig: Specter Books; Düsseldorf: Kunsthalle Düsseldorf, 2015), 113.

2. Ian Cheng, *Emissary Forks at Perfection* statement, accessed February 4, 2016, www.iancheng.com/emissary.

3. Evers in conversation with Cheng, *Ian Cheng*, 112.