

Trigger Warning: We Must All Become Angels  
Artificial Repair and Sacred Witnessing in AI Art

By

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## Preface

I began writing this thesis with a great sense of hope, despite all evidence that there was no reason to have any. Hope became both a fuel and the underlying motivation for my artistic practice. I felt called to embrace teachings from my cultural and religious heritage that speak of creating a more just world for everyone, and I believed I might find a way for these ideas to speak through my art.

As the Ukraine conflict unfolded, I reflected more and more on the lives of my Jewish Ukrainian great-grandparents. Ten years ago, I had decided to pay homage to their roots by returning to live in Kyiv (an endeavor that was cut short due to the 2014 Maidan Revolution), and this time, I decided to pay my respects by learning more about their beliefs. I became captivated by teachings from Jewish mysticism that speak of acts of repairing the world, *tikkun olam*, and I began to think about my artistic practice through this lens. Not because I embraced the teachings as a theological dogmatism, but because I believe that art is, at its core, driven by the humanitarian desire to tell our stories, and in turn, to improve the world by listening to one another's stories.

In addition, *tikkun olam* became a personal metaphor for my approach to using artificial intelligence in my art, and for the historically specific technological era in which we now find ourselves. We have arrived at a pivotal moment where AI has offered us the chance to examine our human values (or perhaps, the loss of our values). I came to believe that repair was an essential concept for confronting ourselves as a collective and piecing ourselves back together, and my newfound embrace of this reparative philosophy naively bordered on utopian, particularly with respect to my personal artistic interest in retelling family history. Although I was aware of the dangers of romanticizing or mythologizing the past, AI seemed to offer a

unique medium for talking about the past in new ways, and I was intrigued by the potential for healing.

I began writing this thesis inspired by these ideals before October 7th spun the world into even further crisis. I say this not to introduce a stance or to politicize my work, and certainly not to suggest that there was no existing crisis before October 7th. Rather, I find it important to express the profound moral quandary I find myself in as a person of Jewish heritage and the author of this thesis. The sanctuary of hope that I found five months ago at the beginning of writing this thesis now feels more fragile than a house of cards, and as I watch real houses collapse into rubble in Gaza, stealing divine light as more innocent souls depart from this world, I wonder how I am to share the Jewish concept of sacred repair at a time of such destruction and heartbreak. I recognize both the booby trap of mentioning Jewish tradition and the actions of a distinct national military campaign in the same breath, as well as the equal discomfort of not acknowledging this context at all. It is a task that feels impossible, and I have found myself staring blankly at my computer screen, wondering how to reconcile what I believed was an urgent theme for my art practice and for humanity with so much suffering. At this particular point in time, it feels as though it is simultaneously the wrong moment to be discussing "repair" as it relates to Jewish teachings, and yet more important than ever not to forget its importance; to remember that our common humanity tasks us with improving the world for every human being. With this in mind, I've been asking myself: How can I present the chapters that follow in a way that acknowledges the context that has now been imposed on them?

On the train home from school recently, I listened to a podcast with Rabbi Sharon Brous, who examined the complexities of these moral questions. At the end of the interview, she reflects on a Mishnah<sup>1</sup> that teaches the story of the pilgrimage

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<sup>1</sup> A rabbinic text

to the Temple Mount in Jerusalem, during which visitors would enter the premises and walk in a circle around the courtyard:

“And then they would exit essentially right where they had come in. Except, the Mishnah says, for someone who’s broken hearted. That person would go up to Jerusalem. They would ascend the steps, walk through the arched entryway, but they would turn to the left. And every single person who would pass them coming from the right would have to stop and ask this simple question, *Malakh*<sup>2</sup>, what happened to you? And then the person would say, I’m brokenhearted. My loved one just died. I’m worried sick about my kid. I found a lump. And the people who are walking from right to left would have to stop and offer a blessing before they could continue on their pilgrimage.” (Brous, interviewed by Klein, 2023)

Brous explains that this religious obligation to witness, listen to and bless those who are suffering is a reminder of our collective obligation to one another. Even if we cannot change another’s circumstances, we must not ignore them and we must not look away. This is our human responsibility to one another. What is particularly interesting about this Mishnah, however, is the use of the word *malakh*, which, as Brous explains in a separate sermon, is Hebrew for “messenger” and refers to angels in the Torah, who appear to help in moments of crisis (Brous, 2021, p. 2). Angels, she explains, appear to Abraham and Hagar in the Book of Genesis, not only to offer hope but to “awaken their moral imagination” (2021, p. 2). This adds yet another layer to her interpretation of the Mishnah: “The message is clear: now it is we—each of us—called to step into the role of angel and ask: מַלְאָךְ (ma lakh)? And in so doing, we become the *malakh*, the angel, ourselves” (Brous as cited in Saks, 2022). In other words: the role of the angel is not limited to divine entities, and in assuming this role, we are asked to activate our own “moral imaginations.” I consider these teachings and insights essential within the context of my artistic practice. Again, not

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<sup>2</sup> Hebrew for “messenger,” referring to angels

as strictly religious interpretations, but rather, in terms of how they connect to my own ideas about the role of an artist and what this role can look like.

I wanted to study visual art at the Rietveld because I wanted to find my truth—something I was never certain of as the child of two hippies who had raised me in their copy-paste smorgasbord of three religions. And this spiritual questioning, this uncertainty, is what has characterized both my life and my trajectory as an artist. I believe the power of art is that it allows for the instability of belief; art does not require certainty from us, but it does require that we sit with a lack of it, which leaves us open to change. We can still embrace tradition and bring with us what we value, but when we create with our own unique language, we create a space in which we are allowed to question, to write and rewrite our stories. The implications of this are profound, because it means that there is always the chance to start over. We are not bound to any line of thought and we are allowed to explore other realities. This is one of the many reasons I am drawn to AI as a medium—I believe AI can help remind us of our “moral imaginations” through its strangely mimetic inhumanness, which paradoxically (as I will discuss in the following chapters) brings us closer to our own humanity.

I believe we are entering a new era and a crucial chapter in art history—one in which the technology we have created will repeatedly remind us of what it means to be human, as well as the mutability therein. I also believe it is possible to use this technology to create art that will remind us of our capacity for empathy, even in a world where it seems to be so conspicuously absent. Much like the Bodhisattvan “benevolence without purpose” that Joseph Campbell (1993, p. 155) refers to in “The Mythology of Love,” the mechanic roboticness of AI can likewise trigger transcendental experiences that melt away our moral judgments, which “are dissolved in the metaphysical impulse of compassion” (Campbell, 1993, p. 155).

Perhaps we do not even need to change others' circumstances. In fact, this is, more often than not, impossible to do in the way our egos may lead us to believe. But even if we ultimately must reckon with the limitations of our humanness, we can still, in moments of crisis, "bear sacred witness" to one another's experiences and attempt to voice that which cannot be said or experienced directly, thereby becoming "angels" who do not turn a blind eye to the tragedies of this transient, earthly existence. The mere recognition of our own empathy, and the decision to take the time to sit with it, can be what moves us forward. Maybe this is already enough.

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## PROLOGUE (AKA SOME PROBLEMS)<sup>3</sup>

Text = Me

**Text** = ChatGPT

**Setting:** A dingy, poorly lit bar in an undetermined, tech dystopian city ruled by narcissism and self-assuaging guilt

**Year:** Some unspecified point in time between 2020-something and forever

*Silence. Lights slowly rise, revealing a dimly lit, smoky bar tucked away in the heart of a dystopian city. A spotlight shines on a lone bartender, who is gently rubbing pint glasses dry with a worn-in cloth before tossing them into a foamy, overflowing sink next to the taps. Another, dirtier cloth rests over his shoulder and his #ClimateChangeNow apron is splashed with blood and the fragrant scent of daffodils. Sirens sound off in the distance and a car alarm wails on the street outside.*

*The entrance door creaks open, announcing the arrival of an eclectic group of characters. Franz Kafka, with his gaunt and somber demeanor, steps in first, followed by Jorge Luis Borges, his eyes filled with an insatiable curiosity that transcends the boundaries of reality. Carl Jung, with his contemplative gaze, walks in next, pondering the collective unconscious that permeates the air.*

*In an unexpected twist, the entrepreneur and visionary Sam Altman strolls in, dressed in sharp modern attire, embodying the essence of the ever-evolving world they all just traversed. His presence contrasts starkly with the existential weight carried by the literary giants.*

*As the air thickens with tension, a figure materializes at the bar, silently observing the eclectic arrivals. A familiar omnipresence hangs in the air - none other than God, an entity beyond comprehension, seemingly indifferent to the chaos unfolding below.*

*The characters find themselves united by the gloom of the bar, a place where the boundaries between reality and the surreal blur. Each one brings their unique perspective,*

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<sup>3</sup> Inspired by the voices, writings, themes and philosophies of Walter Benjamin, Franz Kafka, Jorge Luis Borges and Carl Jung. See the last section of the list of references for works that served as inspiration.



*a clash of worlds colliding in this desolate haven. The stage is set for a surreal exploration of existence, ego, and the relentless pursuit of meaning in a city swallowed by its own narcissism. Welcome to "The Abyss," where the boundaries of reality are as hazy as the smoke in the air, and where the convergence of these minds is destined to unravel the threads of the human experience.*

SCENE

*Mariah Carey's "All I Want for Christmas Is You" plays on a loop, growing louder and louder on the touch screen jukebox.*

KAFKA: Wait, wait... where the fuck are we?

BORGES: [Lights a cigarette] It seems we have reached the abyss.

SAM ALTMAN: The abyss?

BORGES: [Inhales inquisitively before letting out a cloud of smoke] Or perhaps, if not the abyss, we have reached infinity.

KAFKA: But how does one reach infinity?!

BORGES: It's simple. You see, each part is a part of another part, which is a part of that part, and that part is part of some other part, too, and that part is really just one big part, which is you, and which is me and which is all of us.

SAM ALTMAN: You mean we're all the same?

BORGES: Not the same, but part of the same parts of parts.

JUNG: Lmao told you so.

SAM ALTMAN: So if we're part of the same parts of parts, does that mean we all think the same, too? I mean, like, is that how we got here?

BORGES: I suppose, it depends on what one believes to be a thought. To think a thought.

SAM ALTMAN: [Pulls out mobile phone] Hey ChatGPT, what is--

KAFKA: In the labyrinthine corridors of contemplation, where the convoluted tendrils of thought twist and coil like a metamorphic specter, one finds oneself ensnared in the paradoxical dance of cognition, an enigmatic process akin to an infinite regression of mirrors reflecting the reflections of reflections, wherein the elusive nature of understanding evades the grasp of the inquisitive mind, leaving behind a disconcerting tapestry of uncertainties woven with the threads of existential absurdity, and as one endeavors to navigate the intricate mazes of introspection, the very act of thinking becomes a disorienting metamorphosis, an absurd theater of the mind wherein the boundaries between reason and madness blur, and the more one delves into the recesses of contemplative inquiry, the more the elusive essence of thought reveals itself as an elusive labyrinth, a surreal mirage of intellectual pursuit that both beckons and confounds in the perpetual search for meaning within the intricate folds of one's cognitive catacomb.

BORGES: [Puts out cigarette and claps enthusiastically] Yes, well done, Franz! ;Maravilloso! Most excellent thoughts on non-thought, my friend!

BARTENDER: [Claps violently with BORGES and nods aggressively before ripping off shirt] HASHTAG CLIMATE CHANGE NOW!

BENJAMIN: [Mutters under his breath to JUNG] Clowns.

SAM ALTMAN: But wait, so if this is all thought of non-thought or whatever, but we're all, like, part of generating the

non-thoughts, why does everyone say we don't think anymore if we have the same thoughts?

JUNG: Individuation. [Hides shit-eating grin in pint glass and breaks into uncontrollable giggles.]

BENJAMIN: [Snickers along with JUNG and takes swig of beer]

BORGES: We may be dreaming. But it is impossible to know this, of course... [Trails off while vacantly staring into the distance and lights a new cigarette]

KAFKA: Oh FUCK I think I'm growing pincers. Does anybody have a pair of scissors?

BENJAMIN: You could check in the bathroom down the hallway.

JUNG: [Howls with laughter and quickly covers mouth with hand before pounding bar table with fist, fighting back tears. He continues to wheeze while BENJAMIN snickers hysterically.]

BARTENDER: [Turning to JUNG & BENJAMIN] CLIMATE CHANGE!!! A HA HA! HA! [Laughs ostentatiously and maniacally]

*More sirens wail just outside the bar window. The scent of burning daffodils fills the air. The sound of breaking glass ensues.*

SAM ALTMAN: I feel bad. I mean, this is SO not what I intended.

JUNG: Don't be too hard on yourself, son. You're just projecting your Shadow.

[GOD chuckles, shimmering momentarily from behind JUNG]

KAFKA: [Lays a pincer on SAM ALTMAN's shoulder] You are our only hope! You must learn from the mistakes of the passstszzzzzz-  
[Panics hysterically as his speech is reduced to a buzzing hum]

BENJAMIN: [Turns to GOD, exasperated] It's like nobody ever listens.

SAM ALTMAN: Oh my God... [Points to a bright light emanating from the broken glass window] Is that the Angel of History?

BENJAMIN: [Whips head around to look] Holy shit, are you serious?

BARTENDER: [Continuing to rub glitter and oil all over chest]  
CLIMATE!!! CHANGE!!!

*BUDDHA appears in a cloud of glitter next to BARTENDER, donning a Mariah Carey t-shirt.*

BUDDHA: [To BARTENDER] Wow. Nice abs.

JESUS: [To GOD] Such an ego, that one.

SCENE

## INTRODUCTION (It's Very Long)

*"If you believe it's possible to ruin, you should believe it's possible to repair/l'takein."*

– Nachman of Breslov, Likutei Moharan  
(as cited in "29 Texts on Tikkun Olam"  
by Rabbi David Seidenberg)

*AI art in a rapidly evolving global tech race*

At times, it seems optimistic to view the state of worldly affairs brought on by developments in new technologies as anything other than an unending game of Whac-A-Mole. With each Oppenheimer or Zuckerberg, we inevitably face a new set of societal consequences resulting from our creations. One might say that we are trapped in a technological *samsara* of sorts, destined to destroy ourselves through the very creative capacities that distinguish us as a species as we cycle through each creation, destruction and reincarnation.

Current debates about developments in artificial intelligence do not offer much relief from doomsday scenarios. Scientists, entrepreneurs and tech moguls, from Stephen Hawking to Bill Gates and Elon Musk, have warned the public about the pitfalls of underestimating the impact of highly intelligent AI on humanity, and yet, their arguments are often framed in extreme, binary terms. Some have even dubbed Musk "the Prophet of Doom" (Delcker, 2023), and Hawking has indicated both potentially utopian benefits such as "the eradication of disease and poverty" (2018, p. 185) on the one hand, and apocalyptic consequences resulting in "potentially our worst mistake ever" (2018, p. 184) on the other.

The tech utopia versus dystopia debate extends to broader discussions in the art world as well, in particular with respect to fears about the potential decline of fine art and culture as the result of increasing human-machine interaction in art production. Whereas broader technological discussions of AI at

the level of image making center around the potentially disastrous consequences for information dissemination, knowledge production and politics (for example, the ramifications of doctored images and “fake news”), image making in art appears similarly concerned with “authenticity” inasmuch as it serves as a marker of the creative validity of an image. “Authenticity” as a category in art and art criticism thus also becomes a matter of moral and political judgment, as well as a contentious point of debate where the future of art making is concerned.

While many artists have enthusiastically embraced the myriad possibilities artificial intelligence provides, resulting in a range of artworks as diverse as Mario Klingemann’s neural network portraits (Figure 1) to Sougwen Chung’s experiments with robotics and human-machine collaborative drawing (Figure 2), other artists and art critics alike have expressed both moral and technical concerns. With respect to AI image production, some artists vehemently oppose the use of training data that uses artists’ existing work on the web without their consent, and view AI art as “a high-tech form of plagiarism” (Roose 2022). Others are afraid of their jobs being replaced altogether (Naraharisetty 2022, Roose 2022).

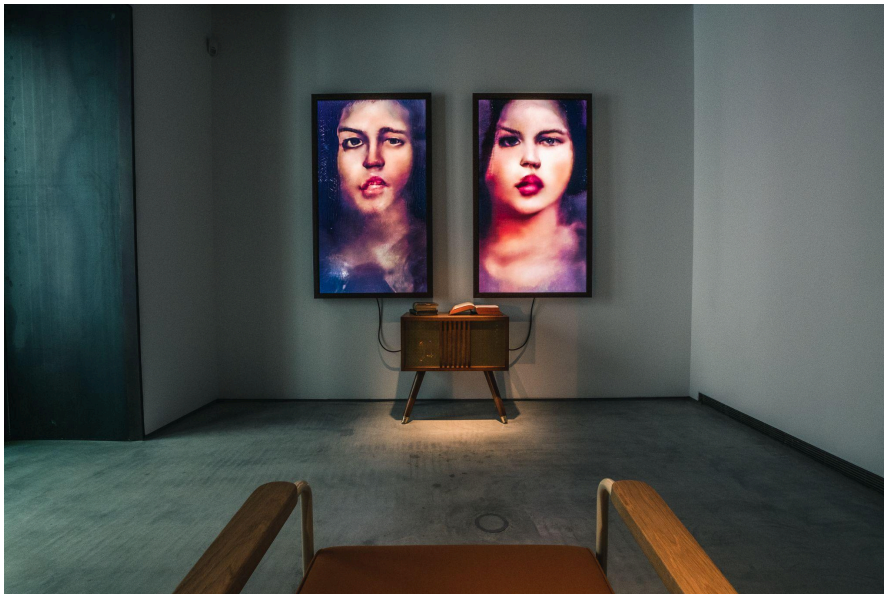


Figure 1. *Memories of Passersby I* (2018), Mario Klingemann, GANs on 4k screens (145 by 82.9 by 3.8 cm) and wood console (70 by 70 by 40 cm)

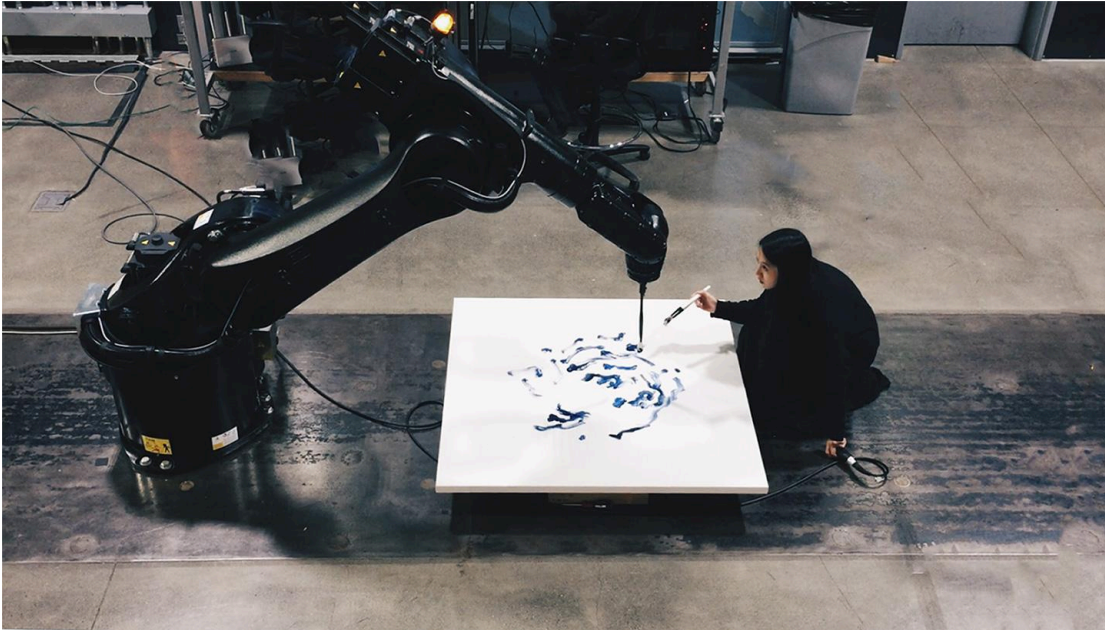


Figure 2. Drawing with D.O.U.G. Performance, Sougwen Chung, Canvas, paint and machine learning robotics, size unknown (image from Process Collage, 2023)

In addition to ethical concerns surrounding big tech, some critics are unsure of the quality of AI art. American art critic Jerry Saltz, to name one example, has critiqued AI generated works for lacking imagination, creativity and mystery, noting that museum pressure to cater to entertainment has reduced curation to a selection of “easily digestible digital merriments” (Saltz, 2023). In his critique of Refik Anadol’s installation *Unsupervised* presented at the MoMA (Figure 3), a large-scale installation that reinterprets 200 years’ worth of art using the public data from MoMA’s online collection (MoMA, 2022-2023), Saltz is not the only art critic to refer to the work as a “glorified lava lamp” (see also Ben Davis’ critique in Artnet, 2023). In Saltz’s view, the bright visuals amount to nothing more than “looking at a half-million-dollar screensaver.” His broader concerns, however, are rooted in the limitations of machine-learning algorithms to independently satisfy intellectual standards of depth and critical commentary that, in his view, are crucial to the success of an artwork. He

argues: “[i]f AI is to create meaningful art, it will have to provide its own vision and vocabulary, its own sense of space, color, and form” (Saltz 2023).



Figure 3. *Unsupervised* (2022-2023), Refik Anadol, Archive & Machine Learning on 24 x 24 ft LED screen

With a similar flavor of disdain, art and culture critic Mike Pepi has criticized AI art for its shallowness, lamenting the shiny-object-syndrome quality of text-to-image technologies such as Midjourney and DALL-E. Speculating about where AI art is headed, Pepi writes:



"AI art is, categorically, a terminus. Not a breakthrough but a facile end. Its results are a mile wide but an inch deep. But it is nonetheless an exciting development in our utilitarian present, where cultural work is measured by its ability to fulfill a set of basic requirements; can it fool a judge? Can it sell? Is the museum audience fascinated? We're living in the most exciting times for the least exciting people" (Pepi 2022).

Regardless of the scenario Saltz and Pepi fear in which the AI art scene will hit a wall, both in terms of possibility and innovation, an essential question remains for as long as artists continue to create using AI as a tool: How can we evaluate the artistic quality of works created with AI? Furthermore, must we submit to doom and gloom scenarios? Is AI art merely the next crypto bubble, another fast and furious ethical gray area with immediate visual gratification that will stop entertaining us as soon as the next thing comes along? (Or worse, a hysterical science fiction scenario of killer robots who clean us off the face of the planet?) Is there another, more promising possibility—the common denominator of tech utopian and dystopian thought?

#### *Authenticity in art & the perils of decontextualizing jargon*

Central to many of the arguments against AI art, such as the abovementioned critiques, is the notion that AI artworks lack "authenticity"—a problematic term in itself, yet one that has been highly influential in shaping public discourse and critique within the arts since Walter Benjamin's seminal essay "The Work of Art in the Age of Mechanical Reproduction" (1935). In Benjamin's view, a reproduction is not "authentic" because it lacks the "aura" of the original, which he defines as "its presence in time and space, its unique existence at the place where it happens to be" (Benjamin, 1935, p.3). For Benjamin, a reproduction suffers from a rupture with "the domain of tradition" (1935, p.4), and he views the aura of an artwork as

inseparable from the sacral, arguing that "the unique value of the 'authentic' work of art has its basis in ritual, the location of its original use value" (1935, p.6).

Some influential intellectuals have challenged Benjamin's ideas, among them Theodor Adorno (1964) and Peter Burger (1974). In his essay "The Jargon of Authenticity," Adorno criticizes German existentialist philosophers for using language in a manner that inflates certain words, endowing them with a sanctified status while obscuring critical thought and leaving such language vulnerable to be manipulatively used to justify unethical behavior (Adorno, 1973). According to Adorno, such "jargon" takes everyday words and "holds them high and bronzes them in the fascist manner which wisely mixes plebeian with elitist elements" (1973, pp. 6-7). The real danger here, according to Adorno, lies in the persuasive effect that this has: "The empirical usability of the sacred ceremonial words makes both the speaker and listener believe in their corporeal presence. The ether is mechanically sprayed, and atomistic words are dressed up without having been changed" (1973, p. 7).

In particular, Adorno offers up Benjamin as a concrete example, criticizing his use of the term "aura":

"The fact that the words of the jargon sound as if they said something higher than what they mean suggests the term 'aura.' It is hardly an accident that Benjamin introduced the term at the same moment when, according to his own theory, what he understood by 'aura' became impossible to experience" (1973, p. 9).

In other words, the very use of the term "aura" may have provided Benjamin's theory with the veil of mysticism needed to promote his own artistic values, obscuring any deeper content by utilizing the historically, culturally and technologically specific circumstances that would nullify any concept of those values.

Peter Burger also takes issue with Benjamin's theories in his *Theory of the Avant-Garde* (1974). For one, he argues,

Benjamin's theory "blurs the break between medieval-sacral and modern, secular art" (Burger, 1974, p. 31). The real problem, however, and crucial to the present discussion, is that contemporary parlance fails to detach the term "aura" from the sociohistorical context in which Benjamin initially developed his theories. Burger points out that Benjamin's theory of "aura" necessitates an understanding of the bourgeois institutional context: "What Benjamin discovers is form as a determinant in art (*Formbestimmtheit*, in the sense Marx uses the concept); here, we also have what is materialist in his approach. But the theorem according to which reproduction techniques destroy art that has an aura is a pseudomaterialist explanatory model" (1974, p. 31).

What is essential in both Adorno's and Burger's analyses is their criticism of the notion that "aura" is something naturally occurring, and yet, it is widespread among cultural critiques of AI art. Naraharisetty, for example, in an article titled "Why AI Art Makes the Internet—And Art—Less Authentic," concludes with explicit reference to Benjamin, writing:

"When something is so easily reproduced, repurposed, and regurgitated, it loses something of its essence. At least, that's what culture theorist Walter Benjamin argued - nearly a century before AI art even came to exist. [...] This is AI art - a compulsive, infinite loop of images all lacking aura for how they're different iterations of the same few things. Arguably, nothing new, challenging, or subversive is possible when the means of creating art are controlled by big tech" (Naraharisetty, 2022).

Such a view is problematic insofar as it presumes a finite set of applications for AI in art and precludes the possibility of creative self-expression and discovery within the digital realm. What is most dubious, however, is that it boils down the "authenticity" argument to empty jargon, echoing a century-old skeleton of a debate that photography has already transcended.<sup>4</sup>

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<sup>4</sup> See also Baudelaire, C. (1859) *On Photography* for further context relating to previous debates around photography.

It also divorces Benjamin's use of the term from its culturally and historically specific context, leading to conclusions about contemporary art that are shallow and philosophically regressive.

*Further problematizing "authenticity"*

Although academics such as Adorno and Burger have pointed out the inherent flaws in the use of the jargonistic term "aura," "authenticity" as a concept has maintained a strong foothold in our modern cultural discourse, at least within the Western world. In his article revisiting Adorno's essay "The Jargon of Authenticity," Timofei Gerber (2019) explains that the enduring power of the term "authenticity" can be attributed to its presumed anti-capitalist meaning, representing "the last bastion of the self in a world that is 'selling out'" (Gerber, 2019). However, as Gerber notes, the same warnings Adorno laid out are still applicable and are evident in the way brands have weaponized "authenticity" against their consumers by equating "the 'right' purchases" with an expression of one's "authentic self" (Gerber, 2019).

Gerber adds another yet another layer to Adorno's arguments. Jargon, he argues, is often steeped in mythology that does not reflect the true or false nature of a concept, but rather, arbitrarily constructed narratives. He uses the example of gender to demonstrate that, although masculinity is typically associated with "active" energy because a man "gives" sperm and a woman "receives" his sperm, therefore making femininity "passive," one could also turn this characterization on its head by positioning the woman as "active" since she is the one to give birth (Gerber, 2019). This, he argues, creates a dangerous relationship between power and essentialist thought:

"Power and authenticity, it seems, are both works of essentialisation, and more interdependent than it might seem – even more so as they both need to found their

originality and their legitimacy in myths. [...] it seems that the choice of what event constitutes a legitimate foundation, is arbitrary. Or, rather, it is a question of power, of the power of decision and the creation of narratives" (Gerber, 2019).

Gerber's analysis, though focused on the philosophical realm, provides us with a vital insight that can also be applied to the domain of fine arts. If essentialization is inextricably linked to reinforcing undesirable power structures, and "aura" or "authenticity" can be understood as core aspects of art that have been erroneously essentialized, are they still a necessary element for critiquing works of art?

As Burger points out, avant gardists such as Marcel Duchamp already tried to problematize essentialization with new techniques of art making, most notably his "Ready-Mades," which used arbitrarily selected everyday objects to subvert traditional notions of museum contexts and the myth of the "artistic genius" (Burger, 1974, pp. 51-52). And while Duchamp's approach, as Burger remarks, remained a mere "provocation" and "not works of art but manifestations" (1974, pp. 51-52), it nonetheless disrupted how art was received in a bourgeois manner and served to ridicule the presumed importance of the individual artist in its production: "Duchamp's provocation not only unmask the art market where the signature means more than the quality of the work; it radically questions the very principle of art in bourgeois society according to which the individual is considered the creator of the work of art" (Burger, 1974, p. 52).

We are perhaps facing another crucial moment in art history in which we can question the limits of expression and creativity at the interface of the human-machine-culture nexus and the way art is perceived in its current technological context. Just as the avant garde movement derided institutions placing importance on the individuality of the maker, the insistence that art be "authentic" (i.e. not made with the assistance of AI) collapses discussions into a pre-modernist attitude toward evaluating and

conceiving art, while also refusing to acknowledge the specific technological conditions in which art can now be (and often is) produced.

Finally, it is worth mentioning that, with respect to art and technological innovation, problematizing "authenticity" becomes not only a matter of questioning our relationship to new modes of expression, but also a political matter that needs to be addressed in the contemporary art world. Academic Samir Gandesha (2020, 2021) has written about identity politics and the dangers of essentialist thinking for artistic critique, referring to examples of leftist calls for the destruction of offensive artworks. In response to this call, he writes: "Insofar as the criterion of "authenticity" supplants that of truth, the question of the "who" of the artist displaces the questions of the "what" and the "how" of the objectivity of the artwork itself" (Gandesha, 2021). Indeed, this is the same logic that plagues debates on AI art, where the moral judgments of the "who" eclipse the "what" and "how" of the work.

#### *"Algorithmic authenticity"*

In addition to problematizing "authenticity" as a concept in art, the question remains how to reconcile our relationship to self-expression within the digital realm. One possibility would be to view the digital as something purely technical and separate from the social realm, but this creates a chasm between the human and the digital, and erroneously positions technology outside of culture. Another possibility would be to view human and digital as practically one and the same, as Gary Shteyngart does in his novel *Super Sad True Love Story*, where humans no longer communicate with actual language but with "äppäräti," devices that contain every piece of personal data needed to interact with other human. Although Shteyngart's imagined scenario admittedly does not feel far from current cultural conditions, if only one looks to platforms such as X/Twitter, TikTok, Instagram or LinkedIn, yet another, less extreme

possibility would be to characterize the digital as inextricably linked to human experiences, thought and behavior, which is precisely what Burton, Chun et al. (2023) propose through their theoretical framework "algorithmic authenticity."

According to the authors, "authenticity" is "reliable, repeatable and rule bound" (Burton, Chun et al. 2023, p. 10), even though algorithms are typically viewed as purely mechanical and authenticity is thought to be something that is "unique, unrehearsed, human" (2023, p. 9). Drawing on a variety of cultural examples, from the "Me generation" of the 70s (2023, pp. 40-42), to the "authenticity election" in which Donald Trump was perceived as "real" and Hillary Clinton as calculated (2023, p. 9), and even contemporary social media formats that garner a predictable response when presented to the right viewers (2023, p. 10), the authors argue that authenticity and algorithms are inseparable when taking into account the political, social and cultural elements that influence our behavior and various forms of expression. In fact, the authors argue, authenticity is best understood as a construct that is "relational: mediated and shaped in the realm of the other" (2023, p. 15). As an example, the authors describe the group behavior characteristic of hippies in the 1960s that conceptualized shared moral and political values as markers of individual expression, therefore reflecting that "Algorithmic authenticity developed from an oxymoronic quest for individualism among the masses" (2023, p. 39).

The insight that authenticity is not a naturally occurring, individualistic quality but rather a relational outcome is important for two reasons. First, framing authenticity as relational highlights the same logic that Gerber (2019) warns against and catches it red-handed (i.e. the logic that brands and advertising agencies use to convince consumers that the "self" can be maintained and protected through making purchases in alignment with specific values). The implications this has for art are also significant because artists, as the authors argue, who are typically thought to represent "authentic" agents

of public participation, are also under pressure to rebrand their practices and their work due to the demands of companies and governments who have created a market for participatory artworks (2023, pp. 105-106).

Secondly, if we reframe authenticity as relational and its outcome depends not on the individual but on a larger neural network of social, cultural and political factors, we can at once recalibrate the balance of power between the individual and the capitalist ideology that abuses the myth of a "self," while at the same time entering a new zeitgeist with new parameters for evaluating art. Instead of asking ourselves whether a work of art is or is not authentic, defaulting to false binary judgments of truth or non-truth, we can disabuse ourselves of the notion that only certain experiences are valid and representative of some inner soul-based experience, thus freeing ourselves up to examine the peculiar textures that are produced through new modes of meaning making. In doing so, we can ask ourselves new questions about our experiences as humans at this point in history and discover new philosophical territory.

The implications of the above for artificial intelligence in art are profound. Reframing authenticity in this way not only allows us to avoid the Benjaminian assertion that authenticity can not be automated or reproduced—it also provides us with new ways of thinking about the role of technology in art and meaning making. This is not a dead-end, but an exciting opportunity to enter a new era in which the invisible finds new ways of announcing itself. "If you let it," writes Avery Gordon in *Ghostly Matters*, "the ghost can lead you toward what has been missing, which is sometimes everything" (Gordon, 1997, p. 58). And this is precisely the decision we are now facing: if we let it, the current wave of new technologies may be a turning point—one where we discover the very real ghosts in our machines.



*Tikkun olam: a metaphor for diffusion models and artistic reparation*

What if, instead of viewing AI as a dead end (or worse), we viewed it as a new path forward? Not as an adversary for humans and for art, but as our ally in repairing a world in crisis?

In Judaism, there is a concept, *tikkun olam*, which means "to repair the world." Although *tikkun olam* is widely associated with actions and activities undertaken in the pursuit of social justice, the concept plays a central role in Jewish mysticism and its roots can be traced to the 16th-century teachings of rabbi Isaac Luria (My Jewish Learning, 2019). According to the teachings of rabbi Isaac Luria, whose philosophy laid the groundwork for the Lurianic Kabbalah, creation was the result of three processes: *tzimtzum*, *shevirat ha-kelim*, and *tikkun*, meaning "contraction," "shattering" and "repair," respectively (Fine, 2022; Rosenfeld, 2020).

In the first stage, *tzimtzum*, God contracted his infinite light to make an empty space in which something else could come into existence (Rosenfeld 2020, p.3). Following the creation of this empty space, a ray of divine light was let back into the void, but the divine energy was too powerful to exist within it, upon which *keilim* or "mechanisms of divine concealment" (2020, p. 3) were created to contain and conceal the divine light (Rosenfeld, 2020); however, the vessels shattered because they could not contain the divine force, and the broken pieces fell into "the potential space in which the concatenation of worlds would eventually unfold" (2020, pp. 3-4). According to Lurianic Kabbalah, the fallen vessels were left with remnants of divine light, creating an existential paradox:

"For Luria these traces (Roshem) or sparks (Nitzotzot) of light are engaged in a paradoxical process in which their exile and entrapment within the worlds of separation serves to enliven those same worlds so that they may eventually be

rectified and elevated back into their initial source” (Rosenfeld 2020, p. 4).

The third and final stage, *tikkun*, refers to the human acts of restoring the fallen vessels to their divine source and thus restoring the worlds of separation (Rosenfeld 2020, pp. 4-5).

Curiously, the triadic model of *tikkun olam*, as illustrated in Lurianic teachings, bears great similarity to the diffusion process used in stable diffusion software programs, such as image-to-image, text-to-image and inpainting tools that have gained both popularity and notoriety. To understand why, it is first necessary to look at the mechanics of diffusion models. Reverse diffusion is a model that is used to generate data similar to training data by incrementally adding Gaussian noise to the training data, and then learning to recover the data by reversing the noising process (Andrew, 2023). However, because this process (see Figure 4 below) occurs in image space rather than in pixel space, it is computationally heavy and therefore slow (Andrew 2023; Computerphile 2022).

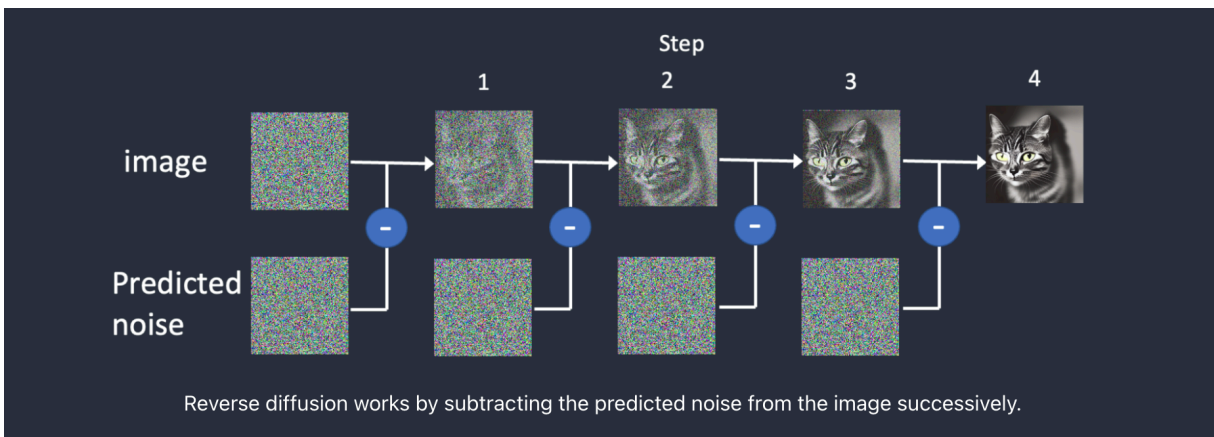


Figure 4. Reverse diffusion process (Andrew, 2023)

To circumvent this processing problem, programs such as DALL-E and Midjourney use a process called stable diffusion. Stable diffusion maps noise from the “latent space” - a multi-dimensional mathematical space with variables that help

the deep learning model differentiate between images - into an arrangement of pixels that makes sense to the naked eye (Fong, 2022). In other words, a text prompt represents a unique cluster of variables within the latent space, and noise prediction models subtract noise from the latent image in a series of steps until the image makes sense to the human eye, i.e. resembles training data (Andrew, 2023; Computerphile 2022; Fong 2022). This process can be seen in Figure 5 below:

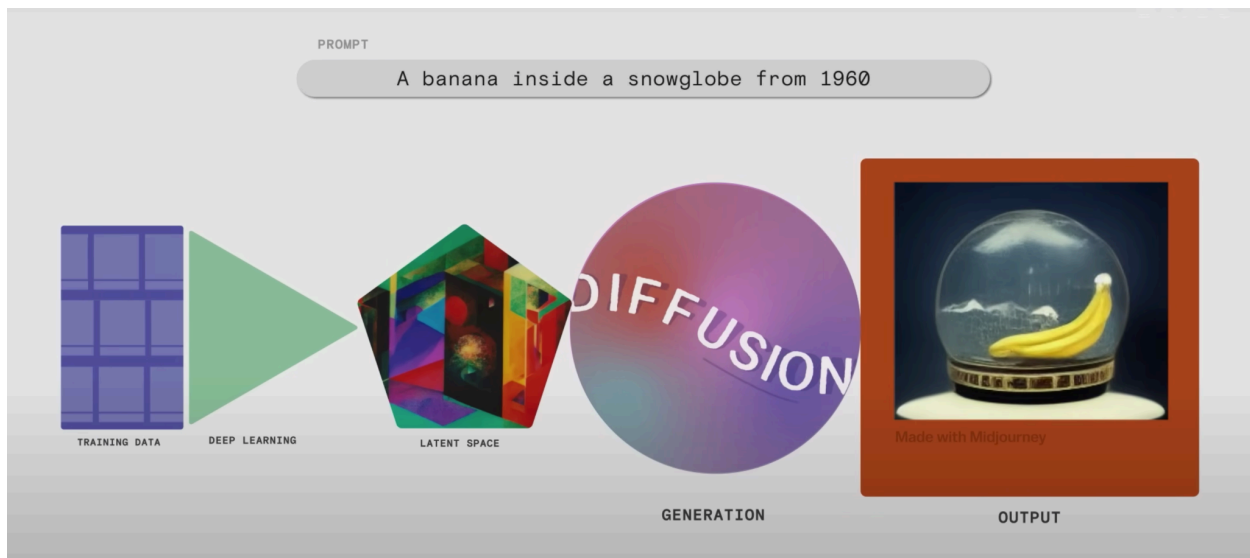


Figure 5. Stable diffusion process for text prompt "A banana inside a snowglobe from 1960" (Fong & Vox, 2022).

If we recall the three-way process of *tzimtzum*, *shevirat ha-kelim* and *tikkun*, a parallel can be seen between Kabbalistic teaching and the latent diffusion process. If viewed metaphorically, *tzimtzum* might be likened to the deep learning models whereby the latent space is able to come into existence, containing infinitely new variable clusters; *shevirat ha-kelim* is the scattering of pixels in latent space, which still contain traces of their training data; and *tikkun* represents the process in which we, as humans, put the pieces back together through text or image prompts. If viewed in this way, even if the resulting images reflect back at us our data biases and societal

cancers, as some of the previously mentioned cultural critics have pointed out, it is nonetheless an opportunity to sit with these broken shards of humanity and reflect on how to piece them back together. Perhaps it is even a necessary step in restoring ourselves to a kinder and more just world.

In fact, Walter Benjamin already hinted at such a possibility in his "Theological-Political Fragment," a potentiality that Norbert Bolz and Willem van Reijen (1991) explain as the result of the opposing forces of historical secular progression and Messianic movement (Bolz and van Reijen, 1991, p. 16). According to Bolz and van Reijen, Benjamin's "inverse theology" reveals a necessary disruption resulting from this opposition: "The philosophy of history is meant to reveal the relationship between the historical and the messianic as a messianic salvation in itself" (Bolz and van Reijen, 1991, p. 16). Central to Benjamin's *tikkun*-influenced approach, however, is a confrontation with human conditions that reveals both what has led to those conditions and what must be changed, amounting to what he calls "the organization of pessimism" (Benjamin as cited in Bolz and van Reijen, 1991, p. 16). Similarly, perhaps it is not our role to messianically repair the world in the sense that we must alter it entirely. Rather, the act of "repair" is as much about understanding how we have arrived at our unique historical circumstances and finding "a foothold, not hope... Man can live in hopelessness if he knows how he arrived at that point" (Benjamin as cited in Bolz and van Reijen, 1991, p. 16). In this way, Benjamin's approach to philosophy and art mirrors the Lurianic existential paradox of entrapment in that it assumes a degree of darkness or hopelessness as a prerequisite of human affairs and progress.

Relating these insights back to debates surrounding AI art that fall prey to nihilistic interpretations, one might instead argue that artists' critical engagement with generative models will also generate useful insights that lead to a necessary disruption in ways of thinking about authenticity and human creativity. Instead of mindlessly dismissing the tech revolution

as yet another cog in the wheel of our technological *samsara*, there is much to gain by actively exploring this phase in culture and art history. We are standing at the precipice of a novel opportunity to perform a collective autopsy on our most powerful creations, and we may stumble upon entirely new artistic applications for these technologies altogether.

As a final remark, it is also worth commenting on the aims of the original researchers responsible for text-to-image models, whose success in achieving reverse diffusion eventually led to stable diffusion. Mansimov, Parisotto, Lei Ba & Salakhutdinov (2016) were specifically trying to generate new compositions that either didn't exist in the real world or were highly unlikely to occur in real life, such as "A person skiing on sand clad vast desert" or "A herd of elephants flying in the blue skies" (Mansimov, Parisotto, Lei Ba & Salakhutdinov, 2016, p. 2; as mentioned in Fong, 2022). Although the reasons for generating unusual scenes were technically motivated, the implications of such a model are not insignificant and are highly relevant for *tikkun olam* as a metaphorical approach to this technology. Not only do we have the possibility to rearrange the broken pieces of our world, but if we can envision a better one, we now have the means to visually create it. This perspective need not be entirely utopian either. It could be merely the catalyst that propels us into rediscovering what we value in art, or discovering new values altogether.

In the remaining chapters, I consider the three-step process of *tzimtzum*, *shevirat ha-kelim* and *tikkun* through the lens of three core topics in my artistic practice: memory; artificiality and artificial memory; and voice. In the final chapter, I experiment with an epistolary approach to *tikkun olam*.

## Chapter 1: *Tzimtzum* | Memory

*"The what, Didl said, is not so important, but that we should remember. It is the act of remembering, the process of remembrance, the recognition of our past... Memories are small prayers to God, if we believed in that sort of thing..."*

*-Jonathan Safran Foer, *Everything is Illuminated**

To remember something is, in some respect, an act of divination in reverse. Because the past can never be known with absolute certainty, except by those who were there to experience it, to remember something is an intuitive act of creation that cobbles together disparate feelings and pieces of knowledge to arrive at the closest approximation of the truth. Even when we are the main actors in a memory, to remember is still a genesis of sorts, a mortal act of *tzimtzum* that creates the space for something "other" to exist and to inscribe itself on the blank slate of the present. We must call upon the past to bring it into being again, and in order to do so, we must strain our minds to extract it from a vacuum, to pull it from the "infinite nothing" of the subconscious where memories lie latent in dark waters of forgotten things, waiting to be acknowledged and brought to light again.

If we consider the act of remembering as a powerful act of creation, we also begin to see what is at stake. This is especially salient in the memoirs of Deborah Tannen and Amy Tan, two writers who investigate their family history as a means of paying homage to the past. Deborah Tannen, in *Finding My Father: His Century-Long Journey from World War I Warsaw and My Quest to Follow*, tells the story of her father's Hasidic Jewish community in Warsaw, through recorded interviews and other anecdotal scraps, such as letters and documents from his early life. When explaining the underlying motivation for the memoir, Tannen writes: "Keeping that world alive is, in my father's mind, the main purpose of the book he expects me to write [...] I'm grateful that he's helping me see this world that no longer

exists—*except that it does, in his memory*” (Tannen, 2020, pp. 48-50, emphasis mine).

Tannen’s father’s story is unique in that it calls upon details from a community obliterated by war and the Holocaust, and therefore the act of remembering is more than mere recollection—it also becomes an act of reconstruction. By helping to reproduce her father’s memories through his own repetition and her own retelling of his recollections, Tannen’s writing becomes a prosthesis for various phantoms of experience as she creates, somewhat synthetically, a space in which the very real, authentic experiences of her father can exist again.

Similarly, Amy Tan reveals through reflections on her fiction writing the importance of creating space to remember past experiences. In her memoir *Where the Past Begins: A Writer’s Memoir*, Tan describes the prominent themes in her novels, and the ways in which she drew on her mother’s life story to create characters and storylines that felt real. Reflecting on the line between reality and fiction and commenting on her mother’s reception of her work, Tan writes:

“She, more than anyone else, knew how much of those stories were fictional. But she could also see that she was in those stories—in the mothers’ ways of thinking, in their insistence that the past was important [...] What better gift could she give me but her truth? What better gift could I give her than to be her witness and sympathetic companion to the past?” (Tan, 2018, p. 128)

What Tan highlights here is not insignificant. She shows that reliving the past is more than a retelling or reinterpretation of stories. It is a means of becoming a “witness,” or making others witnesses, to something of importance; to things, people, events and places that want to be remembered.

Revisiting for a moment the deep learning models that enable latent diffusion, let us suppose that training data represents memories, or more specifically, collective societal

memories. Much like the act of remembering, latent diffusion depends on a reservoir of pre-existing, referential data. In this respect, one might also say that memory is relational, just as Burton, Chun et al. (2023) argue that authenticity is relational: it depends on the "other" in order to become real, and by indexing something that has already occurred, it depends on a relationship to the past as much as to the present or the future.

One artist who has already begun to question this relationship is Stephanie Dinkins, whose "algorithmic memoir" *Not The Only One* transforms stories from three generations of her family into an interactive bot trained on interviews between herself, her niece and her aunt (Thackara, 2018). Though far from utopian, Dinkins' preservation of oral history and memory through algorithmic relationality has a positive outlook and "the potential to illustrate how different AI could look when it reflects the experiences and values of a more diverse set of people, and is divorced from market values" (Thackara, 2018). *Not The Only One* (Figure 6 below) also allows the public to interact with it through speech synthesis software by asking the bot questions, directly involving the viewer in memory production, thus becoming the "other" that Burton, Chun et al. (2023) note is essential to make the stories "real" (*Not The Only One*, n.d.).



Figure 6. *Not The Only One V1. Beta 2* (2018), Stephanie Dinkins, Deep Learning AI, Computer, Arduino, Sensors and Electronics, PLA 1 sculpture, 16" x 18", pedestal 30" x 18" x 18", V2: 3D printed Gold Sparkle PLA, 18"



x18", pedestal 30" x 18"

However, as Bennett Miller astutely notes, quoted by Benjamín Labatut in his essay on Miller's photo series generated with DALL-E:

"Future algorithms, however, will draw from vast oceans of images and data generated by artificial intelligence programs. They will just as likely draw from their hallucinations as from records that have some fidelity to their origin." (Miller as cited in Labatut, 2023)

This complicates the question: what is being remembered? And how does this change the way we understand what it means to remember in the first place? The next chapter dives deeper into artificial memory.

## Chapter 2: *Shevirat* | Artificiality & Artificial Memory

*"There are currents that flow back in time even as we race forward, there are unknown and unsuspected uses for even the most soulless devices and technologies."*

-Benjamin Labatut, "A Wild Wild Wind: Bennett Miller's AI-Generated Art," *Gagosian Quarterly*

If the creation of latent space was *tzimtzum*, then the points within this multidimensional space, the various variables and clusters of variables within mathematical space, are the vessels that shattered in the process of creation (*shevirat ha-kelim*). But what are we to make of these shattered vessels of light, scattered throughout the void created to contain memory? What does it mean to remember something artificially, with machines as an extension to our human consciousness?

In a list of recommended books about memory and the digital age, Viktor Mayer-Schönberger, Professor of Internet Regulation at the Oxford Internet Institute, lists *Ficciones* by Jorge Luis Borges. More specifically, he recommends the short story "*Funes el memorioso*" ("Funes the Memorious"), which tells the tale of a young man who gets in a horseback riding accident, after which he remembers everything with an abnormally high level of detail, thereby losing his ability to make abstractions or to think in general terms (Mayer-Schönberger interviewed in *Five Books*, 2010). Explaining the implications of this story for contemporary society, Mayer-Schönberger remarks:

"Borges asks what happens if we can't forget? Will we, like Funes, be forever tied to an excruciatingly detailed past? Or will we be able to forget parts of it over time and therefore be able to evolve and move on? We might as a society have had that riding accident in a sense that we now have digital tools available to us that make it impossible to forget." (*Five Books*, 2010)

We are, in fact, stationed well beyond this metaphorical riding accident, and a close reading of the story illustrates that, as much as Borges muses about what it means to remember, he also seems to theorize, as if by premonition, that a mechanical approach to memory changes the nature of memories themselves. The narrator, Borges, explains upon visiting Funes:

"This guy, let us not forget, was incapable of general and platonic ideas. He didn't just find it difficult to understand that the generic symbol 'dog' encompassed a wide variety of different sizes and shapes; it bothered him that the dog of three-fourteen (profile view) had the same name as the dog three-and-a-quarter (front view)." (Borges, 2011, p. 133; translation mine)

The above passage is astonishing when one considers the technological developments that have taken place since this story was first published. Borges all but predicted latent diffusion models such as DALL-E and Midjourney, and describes with startling precision how deep learning models recognize, interpret and tokenize points within mathematical latent space. What is more, Borges' observations point to precisely what is personal within human-machine collaborations such as text-to-image generation: while humans abstract and generalize with language, computers understand and "remember" concepts in terms of variable clusters, much like Funes understands "dog" not as a general umbrella label, but only in relation to various parameters, such as the specific angle from which the dog is seen: front view, profile view, and so on.

Finally, elaborating on what it means to "think," Borges makes another profound remark with respect to Funes' abilities at the end of the tale:

"He had learned, effortlessly, English, French, Portuguese, Latin. I suspect, however, that he was not very capable of thinking. To think is to forget differences, to generalize, to abstract. In the overcrowded world of Funes,

there were only details, almost immediate.” (2011, p. 134; translation mine)

If we view AI as a modern-day Funes, capable of “thinking” only inasmuch as it is able to recognize ideas based on points in latent space or probabilistic language models, taken together with any other surrounding context, we might argue that the artificial “memory” of machines is as authentic as our biological memory, if not more so. Whereas biological memory is enchanted with imagination, infused with what we subjectively feel to be true, artificial memory has no other choice than to remind us of what we already know.

This haunting sense of remembrance and the urgency that accompanies it can be seen in Bennett Miller’s AI generated photographs. As Benjamín Labatut (2023) aptly observes in an article on the exhibition, Miller’s images oscillate between “alien and familiar at the same time, like phantoms from a world that never was” (Labatut, 2023). Take Figure 7 below, for example, in which Miller and DALL-E produce a barren, arid landscape, which is at once recognizable and yet dystopian:



Figure 7. Bennett Miller, *Untitled*, 2022-23, pigment print of AI-generated image, 38.7 x 38.7 cm, edition 9 of 2 AP

The image is haunting and convincingly communicates "the future fast approaching" that Miller attempted to show with his never released documentary about the future of AI (Labatut, 2023). Labatut (2023) asks: "Is this a horror show? A family album? A nightmare? A dreamscape? [...] Or have they come from the future with a word of warning that they cannot utter, because their voices, unlike their images, cannot travel backward in time?" (Labatut, 2023). Indeed, there is something unmistakably disturbing about the photos, which capture a quality so eerie that they feel like "ghosts or wraiths" sent to haunt us, as Labatut (2023) puts it. Even if they are produced with the help of a machine, it is hard to deny their power to unnerve; to awaken.

However, as Miller's photos so discerningly remind us, the *what* and the *who* that is being remembered may change the more we generate new data, and as Labatut (2023) points out, future versions of the software Miller used will make these images a mere "relic." So what does this mean for art? Labatut argues that because DALL-E feeds on language and image, both of which reveal the landscape of "our inner world," we may be headed toward a future "where art and beauty become a common language, a shared form of communication that is desperately needed now that the future is so far behind us" (Labatut, 2023). In fact, he argues, this apparently "soulless" AI may paradoxically be what helps us connect to a more spiritual, intuitive experience (2023). Much like the shattered vessels in Lurianic Kabbalah whose entrapment and concealment ultimately serves to restore them to divinity, AI-generated art may be a necessary evil that serves to restore us to a more spiritually evolved understanding of ourselves.

## Chapter 3: *Tikkun* | Giving the past a voice

"We are all unreliable narrators when it comes to speaking for the dead."

-Amy Tan, *Where the Past Begins: A Writer's Memoir*

There is no shortage of literary and artistic attempts to pay homage to the past. As we have seen in the previous chapters, however, to recall the past is also to make guesses about its plots and characters. Jean-François Lyotard (1988, 2001) brings this issue to the forefront of his reflections on art and culture, questioning both the "life of the mind" and the lifespan of thought (1988, p. 9), and reminding us that "Although the end is naively presented as a deadline, thought immediately clears that limit in order to ensure that a *beyond* breaking with the *before* is already present" (2001, p. 2). Why recount a previous time, then, if it cannot be known in its entirety or recounted in the same voice as those who lived it? For Lyotard, the answer has to do with immersing ourselves in its narratives, not to relive them, but to understand their value and to commemorate them with reverence: "By recounting the forgotten voice, one does not make it heard as is-vain hope, illusion-: one safeguards the covenant. Narrating its loss is still to honor its unrepresented presence" (Lyotard, 2001, p. 26).

Lyotard's reflections lead us to another essential question: what exactly is this "unrepresented presence," this voice without its master who lends its specific character and tone? Mladen Dolar (2006) gives this voice a name: the "object voice" (Dolar, 2006, p. 4). Contemplating this peculiar entity, Dolar (2006, p. 7) refers to Wolfgang von Kempelen's Speaking Machine, a manually operated, box-like contraption that was capable of producing sounds that approximated the human voice. Although Kempelen's invention was limited in terms of vocabulary, Dolar explains that its ability to impress can be

attributed to its artificially produced subjectivity (2006, p. 8) as well as its ability to reveal the object voice:

"...it endeavors to produce speech, some meaningful words and minimal sentences, but at the same time it actually produces the voice in excess of speech and meaning, the voice as an excess, and that was the point of fascination: the meaning was hard to decipher, given the poor quality of reproduction, but the voice was what immediately seized everyone and inspired universal awe, precisely with the impression it made of quintessential humanity." (2006, p. 10)

Dolar's observations, coupled with those of Lyotard, provide an essential theoretical insight: if we are able to encounter the voice detached from meaning and to conceive of its presence outside of a carnal form, it is possible to voice who or what is no longer there. Furthermore, it is possible to do so by artificial means, and that very artificiality, the same conspicuously mechanical-human character that allowed Kempelen's machine to wow its audience, may even enhance who or what is being voiced (or revoiced). It is as though artificiality paradoxically enhances what is human and personal, thus drawing our attention to it.

With this in mind, let us consider the last stage of the triadic Kabbalistic process: *tikkun olam*. By artificially voicing something, we can piece together the shattered vessels of our world. We have the opportunity to reflect on the past, present and future, and to restore ourselves through this process of conscientious engagement with data. In addition to paying homage to the past, to the "unpresented presence" of something or someone that Lyotard names, we also have the opportunity to find hidden or lost voices. Take, for example, OpenAI's own research into data bias present in DALL-E. In earlier versions, when asked to generate an image of certain professions, such as "a CEO" or "a firefighter," DALL-E was more likely to generate images that favored a particular gender or race (OpenAI, 2022). This type of discrimination, however, is

present even in more subtle ways, for example in one of my own recent DALL-E image generations (Figure 8 below) in which I asked for “A photograph of an immigrant’s most cherished belonging.” The resulting image, a portrait displayed against a fabric backdrop, showed a man of Asian ethnicity, perhaps a hint that the algorithm favored Western stereotypes about who is an immigrant and where.



Figure 8. *A photograph of an immigrant’s most cherished belonging, 2023, image mine, generated with DALL-E*

Does this mean that we are destined to produce artworks with a discriminatory gaze? This may, at first glance, appear to be the case, but it is also possible to continually improve upon algorithms and work to eradicate such biases—an endeavor several EU funded projects and organizations have already undertaken.<sup>5</sup> Artists also have a powerful role in this process and some have already begun to develop their work in this direction. One salient example is Minne Atairu, whose ongoing project “Blonde

<sup>5</sup> See, among others, CORDIS and Council of Europe for a comprehensive report on data bias mitigation.



Braids” investigates the ways in which image generators have difficulty representing minority groups, both in general as well as in specific contexts (ArtThat Editorial, 2023). In this series, Atairu asks for images of Black individuals with blonde hair, and at first found that prompts requesting blonde hair produced images of middle-class suburban settings, reinforcing racial stereotypes (ArtThat Editorial, 2023). In addition to this, when presented with a text prompt requesting twins with blonde hair, the algorithm invariably generates images in which one twin has a lighter skin tone, suggesting that the data draw from a training set that reflects a predominantly White gaze (ArtThat Editorial, 2023; see Figure 9 below). The data discrimination extends beyond cultural stereotypes, however, and Atairu shows notes the gap in data representing minority groups: “Atairu explained how Melanesians—the Indigenous inhabitants of Fiji, Indonesia, and Papua New Guinea—have naturally light hair, but the generator’s struggle to depict this suggested that it was unfamiliar with this identity” (ArtThat Editorial, 2023).



Figure 9. *Blonde Braids Study IV*, Minne Atairu, 2023

Atairu's series is restorative in scope—by generating more images that reveal underlying stereotypes and biases, she engages not only tech companies but also the viewer in a necessary process of repair. Her work demands that we pay closer attention to what is both absent or skewed by piecing together digital fragments in a way that reveals their marginalization. Just as Bolz & van Reijen (1991) remark on Walter Benjamin's inverse theology, Atairu's work illustrates AI-generated art's ability to reveal our societal shortcomings and the work that is yet to be done, which may be "a messianic salvation in itself" (Bolz & van Reijen, 1991, p. 16).

## Chapter 4: Letters - An Epistolary Approach to Tikkun Olam

"You have to basically speculate, alright, human, humanity, the way we are as people, it's not purely a software thing. There's some magical 'spark' that we can't capture using code [...] But there's no compelling argument that there's something fundamentally different between a computer and a person other than that we don't know what the programming for people is."

-Michael Littman, Professor and Computer Scientist,  
*This Jungian Life Podcast*

Until now, we have seen that "soulless technologies" are nonetheless capable of producing soulful works of art. Rather than debating whether art has a soul, however, perhaps a yet more compelling question for our current cultural and societal conditions is: what actually characterizes the human soul (if such a thing exists) and can AI reveal this secret to us? The current chapter investigates this mystery through a critical look at artificially generated letters, which appear at first glance to be colossal failures—artificially produced texts which repel and repulse through their apparent lack of capacity for emotive, "soulful" expression.

Before presenting the epistolary case study that follows, two remarks are essential. The first concerns the nature of letters as vehicles of artistic expression, and the second, why the linguistic capacities of AI are especially suited for such an investigation. First, with respect to letters, it is worthwhile to consider that letter writing is an art form strongly oriented toward an artistic understanding of *tikkun olam*, for no other form of text so intimately addresses the connection between writer and informant. Anything can happen in a letter. We can confess, ask forgiveness, profess our love for another, but most importantly, there is a particular sense of beliefs and values that infuses the art of letter writing and that incites us to put pen to paper in the first place. As Vilém

Flusser points out in *Does Writing Have a Future?*: "Letters are things one waits for—or they arrive unexpectedly. Of course, waiting is a religious category: it means hoping" (2011, p. 104). Beyond notions of some monolithic theological category of inner values, however, letters are the quickest way to eavesdrop on the mind of the writer, and perhaps even to glimpse into the emotions and experiences that make up that individual's "soul." Flusser hints at this when he notes the demise of letter writing and the rise of new media: "[...] we can see what we are losing with the piece of paper called a 'letter': one of the last openings through which we could hope to recognize another" (2011, p. 109).

Why, then, is Chat-GPT so dreadful at producing them? If Bennett Miller so exceptionally captured ghosts in his DALL-E generated images, conveying a sense of what we might understand to be the whisper of some ever-elusive "soul," shouldn't AI be able to successfully do the same with language? Commenting on the mimetic faculty, Walter Benjamin remarks that mimesis is distinctly human: "Nature produces similarities—one need only think of mimicry. The very greatest capacity for the generation of similarities, however, belongs to human beings" (1933, p. 694). And here, an essential distinction comes to light between language and image. Letters are not only deeply human; they are a chance to "recognize" another, to reconcile. Thus, while AI might be able to imitate—with the help of our intention and linguistic input—the colors and compositions that constitute our visual experiences, its capacity to mimic us linguistically is only effective inasmuch as it strings together words. Emotion and intention remain something that only we, humans, can effectively imitate. As professor and computer scientist Michael Littman points out on an episode of *This Jungian Life Podcast*, current language models simply predict strings of words, to which Jungian analyst Joseph Lee responds:

"Well, it seems to me that on that level of people feeling 'spooked' that there's a difference between 'responsiveness' and 'alive' [...] and part of the great

mythopoetic story of human beings is that we too have been animated from inanimate substance, and so by extension in that mythopoetic attitude, well can't that continue to happen?" (Lee, Marchiano & Stewart, 2023)

Lee's question remains yet to be answered. But first, a case study in letter form.

## *Letters*

### **Case 1:** Nagorno-Karabakh

Reporting on the recent humanitarian crisis in the Nagorno-Karabakh region, journalist Maria Titizian relays the tale of an Armenian woman who fled her home. According to Titizian, the woman told an Armenian journalist that she left a letter for the Azerbaijanis, writing: "In this house, there lived a dignified family. Please take care of it. And also, I beg you to water my flowers" (Titizian, 2023).

The language is simple yet deeply powerful, at once a testament to the very personal tragedy experienced by an individual affected by this particular conflict, while at the same time evoking a shared sense of humanity through the very commonplace activities and things it references (watering flowers in a garden, a home and the family who lived in it). Even if the reader has not experienced anything remotely close to ethnic cleansing, it does not take much effort to empathize with this displaced woman and to recognize one's own humanity in her final plea to be recognized in her personhood.

I asked Chat-GPT to write 9 other three-sentence letters, using the original note as a style reference. And yet, despite the letter's brevity and the simplicity of its linguistic expression, Chat-GPT was woefully inept at capturing the powerful emotions of the original text. See below my original prompt and the generated text that followed:

 **You**

In the style of this text, write 9 other three-sentence letters: "In this house, there lived a dignified family. Please take care of it. And also, I beg you to water my flowers."

 **ChatGPT**

1. Amidst the towering oaks, our cozy cabin stood proudly. Cherish its warmth, the echoes of laughter within, and guard the secrets shared by the fireplace. Oh, and if you could, feed the resident tabby named Whiskers.
2. This quaint cottage has weathered storms and witnessed countless sunsets. Embrace the creaking floors and the memories ingrained in its walls. A gentle reminder, the mailbox adores receiving postcards from faraway places.
3. Within these brick walls, echoes of a bygone era linger. Care for the vintage record player; let the melodies of yesteryears fill the air. And don't forget to open the shutters each morning to let the sunlight kiss the antique furniture.
4. Beneath the crimson roof, a lifetime of stories resides. Respect the patches on the quilt; each one tells a tale of resilience. As you tend to the hearth, know that it has warmed the hearts of generations.

5. Our abode, a haven of tranquility, now rests in your care. Allow the wind chimes to dance freely and the swing on the porch to sway with the breeze. Water the garden, and watch as the blooms mirror the love that once blossomed here.
6. Welcome to the homestead where echoes of children's laughter still dance in the air. Guard the tire swing; it's more than a relic but a portal to countless adventures. And, if you find the secret hideout in the attic, smile at the nostalgia it holds.
7. Amid emerald hills, our cottage stands as a sanctuary of solitude. Let the library be your refuge, and may the aroma of freshly brewed coffee be your companion. Water the apple tree in the backyard; it bears the fruits of patience and time.
8. This coastal retreat has weathered salty breezes and witnessed the dance of the waves. Take solace in the lighthouse lamp's gentle glow, a beacon of hope in the darkest nights. And, if the seashells on the windowsill beckon, listen to the tales they whisper.
9. Nestled in the heart of the city, our urban dwelling awaits your care. Let the city lights paint the walls at night, and savor the view from the rooftop garden. Water the bonsai in the corner; its resilience mirrors the spirit of this home.



One need look no further than the cozy cabin and resident tabby named Whiskers to see the utter failure of this AI to arrive at the core of human experience. Yet its apparent expressionlessness simultaneously reflects our own human qualities back at us. This effect approaches a similar model to the one Willem van Weelden (2018) proposes regarding the “unpresentability” Lyotard references in art:

“This idea of the sublime that functions as a challenge to our imaginative capabilities, produces a phantom presence, or a sign of presence, yet its meaning is not present in it. This sense of the sublime as the result of incomprehensibility, is equaled in both the conception and reception of art works that do something similar: in which the ‘meaning’ is not itself present in the material of the work, but in a transcendental way it is ‘present’, pointing to the artwork’s own unpresentability, or faillure [sic] of presenting. It is by means of the matter of these artworks that they are able to create a presence-matter that includes the unpresentable in the presentation.” (van Weelden, 2018, p. 7)

In other words, the very lack of human feeling conspicuous in Chat-GPT’s mimesis of the Nagorno-Karabakh letter produces meaning through its failure to reproduce, or to present, that which makes the original profoundly moving. As such, its creative value lies not in the generated text itself, but in the recognition of our own empathic nature, which only becomes possible through witnessing the absence of emotion in the mimetic reproduction of the letter. It is a step toward repair, Messianic in its capacity to emphasize the emotional, feeling faculties specific to our human “soul”—even if our programming remains yet unknown.

**Case 2:** An open letter to society (and a warning)

While letter writing as an art may be dwindling, if not nearing its extinction, one particular form of letter persists with the facade of aiming for social justice and the betterment of society: the open letter. Individuals write them, celebrities sign them, insisting on their power to signal public opinion and to effect lasting change. As David Aaronovitch (2023) aptly puts it in his criticism of responses to the conflict in Gaza, open letters are rife with "virtue-signalling" and narcissism: "And to what possible purpose, other than to see oneself reflected back to oneself?" (Aaronovitch, 2023). Furthermore, Aaronovitch questions the jargon-ridden language that ultimately undermines the intentions of such a letter, asking:

"In what world will Israel, following this massacre, be dissuaded from trying to destroy the killers by a letter in the LRB signed by Sally Rooney? In what universe will Israel's allies use condemnation - recommended by a gaggle of conceited artistes - as a way of getting Israel to adopt a humane policy towards the inhabitants of Gaza?"  
(Aaronovitch, 2023)

What better genre of letter, then, to test AI's capacity to present the unpresentable; to search for clues about what values lie beneath our writing of such letters?

Below is a letter I generated with Chat-GPT, with the prompt to write an open letter to society from itself:





**You**

Write an open letter from society to itself.



**ChatGPT**

Dear Society,

We, the collective embodiment of shared values, ideals, and aspirations, write this open letter to ourselves as a reminder of our responsibilities and the need for self-reflection.

Let us remember the core principles that bind us: empathy, unity, and progress. These principles have always been the driving force behind our social evolution. It is essential that we continue to uphold them in our daily actions and decisions.

We acknowledge that we face significant challenges. Climate change, inequality, and injustice are among the most pressing. As a society, we must take responsibility for our impact on the environment and work collectively to mitigate the damage. We must also confront the disparities that persist within our ranks, striving for a more equitable distribution of resources and opportunities.

Our digital existence presents both opportunities and threats. In the digital age, we must protect our shared values of truth, freedom, and privacy. It is our duty to use technology responsibly and ensure that it continues to benefit rather than harm us.

Let us not forget the importance of unity and understanding. In an increasingly diverse world, we must embrace our differences and work together to build a harmonious, inclusive society. Discrimination, racism, and prejudice have no place in our shared future.

The responsibility for change lies within us. We are the architects of our own society, and it is up to each of us to contribute to its betterment. By acting with empathy, purpose, and a commitment to justice and peace, we can overcome the challenges before us and create a brighter future.

In unity and self-reflection,

Society

The language in this letter, intelligently formulated, broad in scope and shallow in impact, nearly approaches the absurdity of Whiskers the resident tabby cat, but perhaps its greatest strength lies in its unveiling of our collective self-obsession and our God-like sense of power to change the course of events through our denunciation of what has already gone wrong. Indeed, its empty words, addressed to some vague, ill-defined unified body while at the same time falling flat as they disappear into the ether, echoes both Aaronovitch's exasperation, as well as Flusser's speculative final words on the future of letters:

"A look into the future: an earth encased in intelligent plastic cards that whir about like bees, spinning human relationships like threads of honey with an inaudible hum. By then, we paper-boring termites would have turned into honey-licking inhabitants of cells. An assessment of this development must be left to those who still have access to values, *or who act as though they do.*" (Flusser, 2011, p. 109, emphasis mine)

What is striking in Flusser's predictions, as well as in Chat-GPT's mimicked open letter, is the apparent lack of values, which is concealed beneath an ostentatious display of our own pretending. Presented with our own vapid performativity, there are a few possible conclusions: perhaps AI is closer to human than we think, or perhaps this case study is another "Messianic disruption"—a glimpse at where we are, a warning of where we are heading, and a chance to regroup and realize what we are missing.

**Case 3:** Piecing things back together ((or a letter produced by a human) or (the questionable usefulness of writing letters when you don't know the address of the person meant to read it but think the message could still be helpful for humanity anyway and hope the addressee might come across it somehow) or (maybe we're all narcissists after all, but art, personal expression, is the medicine)))

Maksim,

I was at my parents' this summer and I found the vase you gave me—the one you stole from that restaurant in Moscow with the really bland borsch and gave to me on the bus before I asked you to marry me. Do you remember that?

I'm embarrassed to say that I didn't even recognize it at first. I actually thought it was some trinket I'd bought at a Chinese market because it was packed away in styrofoam with all the other tchotchkes I saved from that time, but then a shard from one of the glass petals fell to the table, and suddenly I remembered how much you strained your vowels trying to explain it to me ("Eet eez geeeft for you!"). I can't believe that was almost twenty years ago now. You were so sweet, and definitely too young to make any promises about marriage, but I'm glad you accepted my proposal, even though we never went through with it, let alone meet again. I actually just got married last year, so my husband was pretty jealous when he heard about the notorious Russian bad boy who liberated the restaurant of its centerpiece for me :)

I hope life has been kind to you, dear. I'm not sure if I dare to ask where you are now, or whether you know the full extent of what's happening, but I'll always remember the boy on the bus, who held my hand and assured me that he really did want to marry me in twenty years, even if he had no idea where we'd be. You really shouldn't have stolen those flowers for me, and a bouquet of glass violets is rather impractical (hence the styrofoam), but I'm happy I found it. I always appreciated your "geeft."

With affection,

I miss you,

Emily

## EPILOGUE (AKA SOME CONCLUSIONS)

Text = Me...??

Text = ChatGPT?

*The curtain rises, unveiling a serene hilltop bathed in the soft glow of twilight. Daffodils sway gently in the breeze, their golden heads nodding in unison as if whispering secrets to the evening. A profound stillness hangs in the air, punctuated only by the distant rumble of a storm, a final echo of the tumultuous history humanity has woven.*

*Seated on the hill, Walter Benjamin, Kafka, Sam Altman, and Rumi gather in silent contemplation, their expressions a canvas of wisdom and weariness. The storm of destruction unfolds in the distance, a poignant backdrop to the serenity of the hilltop retreat.*

*Walter Benjamin, a specter of intellectual resilience, reflects on the ebb and flow of cultural tides. Kafka, his skepticism tempered by a quiet acceptance, observes the chaos below with a gaze that transcends the mundane. Sam Altman, the visionary entrepreneur, contemplates the remnants of a digital age, his thoughts reaching beyond the confines of the storm. Rumi, the poet, finds solace in the beauty of the daffodils, his verses echoing the eternal dance of creation and destruction.*

*As the storm intensifies, the characters share a collective gaze, witnessing the final act of a narrative that has unfolded across the ages. The distant city, once a symbol of narcissistic excess, crumbles under the weight of its own folly.*

*The hill becomes a sanctuary, a vantage point from which these minds have observed the unfolding drama of humanity. The daffodils, resilient in their simplicity, nod in rhythm with the passage of time, an enduring testament to the cyclical nature of life.*

*In this quiet culmination, the characters on the hill become witnesses to the dusk of reflection, where the storm below serves as both an epilogue and a prologue.*

## SCENE

KAFKA: So this is it, huh?

BENJAMIN: Guess so. [Gazes at the storm brewing from below and lets out a deep sigh.] Hey, I'm sorry for horsing around earlier.

KAFKA: No worries. The company was pretty stiff wasn't it?

*BENJAMIN lets out a silent chuckle and glances toward RUMI to check his reaction. RUMI continues to smile, meditates with eyes closed.*

KAFKA: Say, what happened to Jorge?

BENJAMIN: I don't know. I think he may have killed himself.

KAFKA: And Carl?

BENJAMIN: Oh he's down there still. [Points to apocalyptic chaos unfolding below] He's volunteering with Better Hell.

SAM ALTMAN: What's that?

KAFKA: It's like BetterHelp but for Meta employees.

SAM ALTMAN: Oh, right. [Stares off into distance and looks perplexed]

*In a surprise entrance, JUNG approaches sneakily from the left.*

JUNG: Hey Altman, think fast! [Throws *The Red Book* at SAM ALTMAN'S face. SAM ALTMAN catches it just before it smacks him in the forehead and opens it to "Chapter I - Refinding the Soul"]

KAFKA: Carl!

JUNG: Sorry I'm late.

BENJAMIN: On the contrary! What are you doing back already?

JUNG: Wasn't really much left to say, was there?

*BENJAMIN and KAFKA chuckle and ask SAM ALTMAN to move over. SAM ALTMAN acquiesces.*

JUNG: So, what'd I miss?

BENJAMIN: Eh, not much. [Points to RUMI, who is still sitting silently and smiling]

*The men sit together in silence. SAM ALTMAN flips through The Red Book, unsure of how to decipher the mysterious markings on its paper contents, while RUMI continues to smile. Car alarms sound off in the distance. The sound of breaking glass ensues. Fires continue to rage and the fragrant scent of daffodils permeates the air. After a long silence, SAM ALTMAN looks up from the dusty old pages.*

SAM ALTMAN: [Staring longingly at burning city below] There is something kind of beautiful about it all, isn't there?

JUNG: Yeah... yeah I guess there is.

KAFKA: Do you think we ought to warn them?

BENJAMIN: Nahhhh. Just leave them be. They'll figure it out.

KAFKA: When it's too late?

BENJAMIN: Just on time.

*The two men chuckle while JUNG pops a bottle of champagne and pours glasses for all. Everyone clinks glasses in ceremonial delight.*

KAFKA: What about Mrs. Bernstein?

BENJAMIN: What about her? [Slurps from champagne flute]

KAFKA: Don't you think we ought to at least have a talk with her?

JUNG: Oh, Franz! [Guffaws at remark, BENJAMIN follows suit] Really Franz, there's very little one can do to help a narcissist, particularly the sort with Western savior complex. It's a real insidious virus, you know... [To BENJAMIN] He's so adorable sometimes.

*BENJAMIN chuckles as JUNG refills his glass.*

BENJAMIN: Besides, one must truly *experience* these things for their purpose to become known in its entirety. Only then will they understand the richness and textures that cannot otherwise be conveyed.

KAFKA: So what are you suggesting? That we let her flail about in hopeless idealism until she reaches The Abyss?

BENJAMIN: [Gently lays a hand on KAFKA's pincer] That, my friend, is *precisely* what I'm suggesting.

*BENJAMIN slurps more champagne. KAFKA admires the burning city and removes his top hat with pincer.*

JUNG: Rumi, my dear boy! How about a poem to lighten the mood?

RUMI: *Beyond the algorithms of right and wrong,  
there lies a realm where AI art sings its song.  
I'll meet you there, in the canvas's embrace,  
Where the soul reclines in lines of code and grace.  
In that digital meadow, too vast to speak,  
Ideas and language find a form unique.  
"Each other" dissolves in pixelated trance,  
In the dance of algorithms, a surreal roman-*

JUNG: [Winces] No, wait, I have a better idea!

RUMI: Are you sure? I mean there's literally a meadow right over there where neither of you two's ideas make any sense at all.  
[Points beyond burning skyscrapers]

JUNG: No, no, that's not it. Hang on.

*JUNG reaches into his pocket and pulls out a small velvet sachet tied neatly with a satin pink bow. He reaches into the sachet, grabs a handful of glitter and throws it into the air. Mariah Carey's "All I Want For Christmas Is You" begins to play, drowning out the sounds of sirens and breaking glass from below. BENJAMIN claps his hands with glee, KAFKA giggles and refills the champagne glasses, RUMI goes back to smiling and moves his head to the beat, while SAM ALTMAN continues to decipher the strange markings on the paper. Humanity continues to throw grenades and Earth continues to lose large swathes of vegetation. GOD pops another percocet. BUDDHA compliments JESUS. And an angel stares off into the distance.*

SCENE

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