Truth and Beauty
In an Artificial Age

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Contents

A NOTE ON THE USE OF AI IN THIS BOOK

A large portion of the subject matter in this thesis explores the ethical and philosophical issues raised by generative Artificial Intelligence (AI) and Large Language Models (LLMs). Due to this, much of the imagery used is generated by Dalle-E-2 or MidJourney AI tools and are used as components of other artwork or as examples. Where included as examples and not original work, a note is added identifying the source and prompts given. Where used as components, the AI tool is also noted. Additionally, ChatGPT 3 and ChatGPT 4 were used to augment research and locate original source material but not for the writing of any portion of the text.

COVER ILLUSTRATION AND PAGE 1 RIGHT: The rose images were created with the aid of MidJourney (cover) and Dall-E 2 generative AI, using "A beautiful rose made from nails barbed wire and metal in a glass vase" as a prompt. Art was brought into Adobe Illustrator to remove backgrounds and convert to vector art, and both new color and textures were applied to image. Textures and backgrounds were generated using the p5js JavaScript library with code generated by ChatGPT 4 AI. The generated code was altered to produce color and graphic variations.

introDUCtion

We live in an age where almost everything seems to be artificial[1]. We live on social media where we have largely superficial, if not completely artificial, relationships. We inhabit virtual worlds to escape our real lives via games and VR. We attend remote online meetings with people we have never met in person. We create digital art with tools powered by artificial intelligence that look like "real" art, video or photography. We eat artificial food filled with artificial ingredients. We get paid with artificial, mostly digital currency rooted in nothing more than debt.[2] Many people even have artificial relationships with AI-powered partners that risks the dangers of replacing true human relationships.[3] Furthermore, we live in communities that are planned to mimic authentic communities, but are not, since they are designed for commerce and not conducive to true human connection – the base element of true community.

Our lives are engineered to be artificial — filled with counterfeits and deepfakes in order to pursue a consumer-driven agenda[4]. It is hard to know what is authentic, what is true, and ultimately what is beautiful in the world since we cannot trust our senses to tell us any longer. It is a psychologically confusing time and a dehumanizing one as well.

Disturbing to me is the apathy engendered by all this artificiality for the pursuit of profits. It seems like as long as we can be placated by some shiny new thing, we lose our appetite for what is true and what is real, preferring the counterfeit like children who have eaten too much candy before dinner.

In my opinion (which admittedly is biased according to my Christian worldview), the designer working in this environment must have a solid grip on what is true and beautiful. We designers are purveyors and champions of such through our work. For example, we may raise awareness of societal issues that need to be addressed, therefore we must know what is true and communicate with authenticity to educate others. We may also be taste-makers in our culture and therefore we must know how to work with our various media to create beautiful work (or know how to create ugly work with intentionality and purpose) which will resonate with the culture to elevate it or steer it toward our vision. No matter in which context the designer and artist work, one must have a clear concept in our own minds what is true and beautiful even as this becomes more difficult in our technologically-drunk society.

I will examine aspects of truth and beauty throughout these essays, via examination of the issues that arise from the advent of AI image generation and how this impacts our human lives through the following articles and the associated artworks. These will be philosophical discussions and hopefully provide practical direction as I examine ethical concerns.

The social importance of this should be self-evident, as we have seen enormous, mostly negative, social impacts from our artifice. We run the risk of further dehumanization if we march blindly into the future without questioning what we are marching into.

SOME INTELLECTUAL HONESTY REGARDING MY OWN PERSONAL BIAS

In discussing notions of truth and beauty, there are myriad opinions and definitions debated through centuries of philosophical thought. It is not my intent to provide a thourough set of definitions of these concepts, as it would be far outside the scope of this work and would be futile as there are so many points of view on this topic.

I believe that one's personal understanding of truth and beauty are largely constructs of one's own culture and set of biases. Each artist carries within them a set of presumptions which are often buried deeply within the psyche and unknown even to that person. These presumptions do, however, expose themselves through the artwork produced.

My own cultural identity could be stated as a white, Western, Christian, cisgendered male. I am an evangelical Christian and one who has formal theological training. I also have a background in counseling psychology and personal experience walking though the mysteries of life and death with people of many different faiths when I worked as a hospice and trauma chaplain.

My experience deeply informs my own personal worldview as to how truth and beauty interoperate and the foundation upon which these are built. I cannot help but expose this bias in my own work and writing no more than one who does not share my worldview. I will examine these ideas from a variety of viewpoints later in these articles, but my own is rooted in my personal commitment to orthodox Christian belief.

It is not my goal to define what I personally think truth and beauty ought to be for all individual artists and designers, but rather to encourage deeper examination for oneself.

My statements may cause some readers to discount my work based on my personal beliefs. I would challenge these readers to instead examine their own beliefs, evaluate whether my thoughts here are useful, and seek to be authentic to their own convictions after careful consideration. Humbly, my own views are in constant evolution as I do this work myself, and I do not have an "answer" for the age-old question of "what is truth," nor a complete definition of beauty. I couldn't if I tried.

Secondly, while I am very critical of technologies such as artificial intelligence and social media in this thesis, I am hardly a Luddite — I use these technologies in my own work regularly. However, I *do* have serious misgivings in the current state of the art and see extreme dangers in the misuse of these. So, perhaps a good portion of my thesis may be understood as a warning — a call to be cautious and thoughtful.

As an artist and designer, I aim to find an authentic way to use AI tools and other technological innovations with integrity in order to reflect the truth and beauty of my Creator in this world. I do not require that the reader share my understanding. But, I do hope to inspire a little more deep thinking in our important vocation as artists and designers.

OPPOSITE: MidJourney prompt:"Truth and Beauty in an Artificial Age." It is interesting, and more than a little concerning that every time I ask MidJourney or Dalle-E 2 to produce a concept based on beauty as a prompt, it consistently generates a white Caucasian woman as a model along with flowers of some sort. This illustrates the bias in current image generation tools.

AN OVERVIEW OF MY OWN PRESUMPTIONS

1. *There is such a thing as absolute truth* rooted in who God is, His attributes, and the intrinsic goodness and sacredness of His created order.

2. *What we identify to as beauty is a natural human response* to the goodness of that created order, and can be shared by all.

3. *Truth and beauty can be counterfeited, and* often are, by world systems which stand in opposition to or are willfully ignorant of God's order.

4. *A transcendent experience of counterfeit beauty is possible. But this is an experience of the sublime and not true beauty.* It is an emotional reaction which may move the viewer deeply, and even be described as transcendent, but it is not ultimately rooted in what is true and therefore cannot be said to be beautiful in my own opinion.

THE IMPORTANCE OF TRUTH AND BEAUTY IN DESIGN

Our society is heavily influenced by post-modern notions of truth which make these values a matter of subjective understanding or opinion[5]. An oft-spoken idea and sums it up that one may hear in discussions of moral or absolute truth is "there are no absolute truths," or "that's not my truth." These statements are self-refuting – they are in themselves absolute truth-statements.

We are experiencing a time where deepfakes and image-manipulation and/or generative image creation is both prevalent and simple to create. So much of what we consider truthful comes from what we see: "Seeing is believing." But, this can now be manipulated in ways we never imagined it could be just a decade ago. How do we know what is authentic then, what is even the creation of the artist and designer, or what is generated by a machine?

Our world has a truth-problem. As an example, a consensus of scientists may present evidence and conclude that our climate is changing due to industrialization and the burning of fossil fuels, and that this will have catastrophic consequences globally; but many will refute this as false, politicizing the issue. Some will cite interesting evidence that the climate has actually been cooling over the period of the last 50 million years as part of a natural process[6], but another group will deny that possibility as well and dismiss it as "misinformation," further politicizing it. In 2017, it was revealed that the U.S. government was even censoring the mention of "climate change" in official U.S.D.A. communications preferring to reference "weather extremes".[7]

One may also look at other issues which vex us today such as beliefs around religion, human sexuality, gender, human rights, affordable housing, poverty, immigration and more. Just because a person holds a belief strongly does not make it true. And believing is not the same as knowing. And because of the state of our technological confusion, knowing what the truth is in these issues are as difficult as the issues themselves are divisive.

Furthermore, if our society cannot agree on what basic truths are in our shared reality because individuals are unable to discern the information received by their senses through technological manipulation, how can there even be a functioning society at all? What of civilization itself?

SO, WHAT DOES THIS ALL HAVE TO DO WITH GRAPHIC DESIGN?

Graphic Designers are often tasked with educating the public about issues of importance. For example, what could be more important than sounding the alarm about an existential climate crisis – if that is what is really happening? How can one adequately research to find the truth with the prevalence of false information, "fake news", and deep-fake technology. How can anyone know the truth in such a confusing environment?

Because most people today lack training in critical thinking,[8] we often cannot discern what we believe from what we know to be true. When one believes something, it may or may not have grounding in empirical fact or experiential knowledge. When one knows something, it is typically measurable and observable, or rooted in lived reality in some way. We know these things as facts.[9] And, "facts are stubborn things." [10]

However stubborn facts may be, human nature, when faced with competing facts that challenge a particular belief, will tend to ignore the competing information, and give more weight to sources that amplify the belief. This is known as confirmation bias,[11] is normal, and has been going on since the dawn of humanity. However, this is further exacerbated by the way our current media and social platforms present information via algorithms which serve information that a user will most likely respond to, and it can quickly become toxifying and even dangerous.[12]

Designers are just as human as anyone else. We want to do work that is meaningful to us, and that carries the weight of truth and authority. After all, no one will pay attention to us and our work without being considered authoritative in some way. That requires that we be authentic – truthful (as best we understand it) – in our work.

What about consideration of beauty? As it is understood in classical philosophy, there is a deep link between truth and beauty as we will explore in these articles. What is beauty and what makes something beautiful? This question has been debated for centuries, and now that machines can make "beautiful" things (or can they?), the question enters another level of depth for designers. If we care to be more than aesthetic by being truly authentic, we must examine beauty in our current technological context.

our world has a truth-problem

facts are stubborn things

NOTES

1 "We live in a society whose whole policy is to excite every nerve in the human body and keep it at the highest pitch of artificial tension, to strain every human desire to the limit and to create as many new desires and synthetic passions as possible, in order to cater to them with the products of our factories and printing presses and movie studios and all the rest." Thomas Merton, A Thomas Merton Reader (Abbey of Gethsemani, Inc., 1962), Page 43.

2 Yanis Varoufakis, Talking to My Daughter about the Economy : A Brief History of Capitalism (London: The Bodley Head, 2017), 46.

3 Opinion Contributor Liberty Vittert, "AI Girlfriends Are Ruining an Entire Generation of Men," The Hill, September 26, 2023, https://thehill.com/opinion/technology/4218666-ai-girlfriends-are-ruining-an-entire-generation-of-men/. This is an opinion piece that notes the growth of "AI Girlfriend" apps, but one which I mostly agree. Another disturbing trend is the way in which many men verbally abuse their AI girlfriends and then brag about it on social media platforms: "Men Are Creating AI Girlfriends, Verbally Abusing Them, and Bragging about It on Reddit," Fortune, January 19, 2022, https://fortune.com/2022/01/19/chatbots-ai-girlfriends-verbal-abuse-reddit/

4 An example of this comes from the economist Victor Lebow, quoted from this article: ""Our enormously productive economy... demands that we make consumption our way of life, that we convert the buying and use of goods into rituals, that we seek our spiritual satisfaction, our ego satisfaction, in consumption...." Victor Lebow, "Price Competition in 1955," Journal of Retailing 31, no. 1 (1955). Page 7. (Emphasis mine.)

5 Examples of this thought can be found in the philosophical work of Jaques Derrida. For a summary, reference Christopher Norris, "Truth in Derrida," August 12, 2014, 21–41, https://doi.org/10.1002/9781118607138.ch1.

6 "Climate Change - the Last Great Cooling," Encyclopedia Britannica, n.d., https://www.britannica.com/science/climate-change/The-last-great-cooling.

7 Oliver Milman, "US Federal Department Is Censoring Use of Term 'Climate Change', Emails Reveal," The Guardian, August 7, 2017, sec. Environment, https://www.theguardian.com/environment/2017/aug/07/usda-climate-change-language-censorship-emails.

8 Helen Lee Bouygues, "Critical Thinking Skills Not Emphasized by Most Middle School Teachers," Forbes, August 17, 2022, https://www.forbes.com/sites/helenleebouygues/2022/08/17/critical-skills-not-emphasized-by-most-middle-school-teachers/?sh=606e81332ee4.

9 "When Does Believing Become Knowing? | Issue 6 | Philosophy Now," philosophynow.org, n.d., https://philosophynow.org/issues/6/When_Does_Believing_Become_Knowing.

10 "Facts Are Stubborn Things – Quote Investigator®," Quote Inpector, June 18, 2010, https://quoteinvestigator.com/2010/06/18/facts-stubborn/. This is often attributed to John Adams, who did use the phrase, but it was first used by Tobias Smollett.

11 Shahram Heshmat, "What Is Confirmation Bias?," Psychology Today, April 23, 2015, https://www.psychologytoday.com/us/blog/science-choice/201504/what-is-confirmation-bias.

12 A good overview is found here: Angela Colabella, "Op-Ed: Social Media Algorithms & Their Effects on American Politics," Fung Institute for Engineering Leadership, May 2, 2022, https://funginstitute.berkeley.edu/news/op-ed-social-media-algorithms-their-effects-on-american-politics/.

THE ARTIST AI
CONUNDRUM

Ethical Reflections on
AI-Generated Artwork

These are crazy days to be an artist. With the recent advent of AI image and text generators, artists like me are both fascinated by the potential to use a new, powerful tool; but also repelled by the "uncanny valley"[13] so evident in what these tools produce. Not to mention a good deal of ethical problems with the way that AI has been implemented and re-leased to the public, which directly threatens and diminishes the livelihood of many artists (and just about every white-col-lar worker too).[14]

It seems to many that applications using increasingly so-phisticated AI has been released haphazardly without consid-eration for the seismic shift such tools create for others, which can be quite consequential and damaging. It is as the old notion often voiced goes: if we CAN do something, SHOULD we do that thing? The advent of AI certainly seems to be some kind of violation of that question.

I recently watched a video of a conversation between an artist and a venture capitalist/technologist who works with AI startups. In the video, titled: What AI Developers Want Artists to Know about AI,[15] the technologist side of the conversation basically summed up the argument: since the AI boulder is quickly rolling downhill anyway, artists should help steer the boulder where they want it to go — all while acknowledging that this probably isn't really possible. Those working in AI research, according to the technologist, are "truly working to create Utopia" where everything will be free, and a new Golden Age of humanity will begin.

Nowhere in the tech side of the discussion was the concern acknowledged that perhaps AI would not be used to create Utopia and could just as easily create Dystopia by people who have less-than-beneficial motivations. The artist in the conversation raised those concerns, but they were largely dismissed by the technologist with the argument that because researchers were serious about creating AGI (Artificial General Intelligence) which would usher in Utopia enabled by this super-intelligence, that no one would bother to use the technology for nefarious purposes.

But people would never do something like that, would they?

This was an enlightening discussion to hear the perspective of the technologists, but it was a chilling perspective too. It seems that the basic questions of ethics are largely being dismissed.

For example, from the artists' perspective, since the image-generating AIs use a training set of images from sources that are not public domain, and are copyrighted, used without permission of the artists, they should not be used.[16] The counter-argument that the training sets are used for research is currently used to defend the legality of using them, since they are not (supposed to be) used for profit. However, they are used for just that with the public release of the AIs trained with those images.

Another counterargument here from the technology side is that the AIs are not storing the images in some kind of database, but that their neural networks are trained with them in the same way humans are — when they see something they are able to mimic it because the neural pathways are formed in the network, similar to how a human brain works. Therefore, use of copyrighted images to train the AI is the same as an artist learning a style of art from looking at artists' work, which is something that occurs all the time.[17]
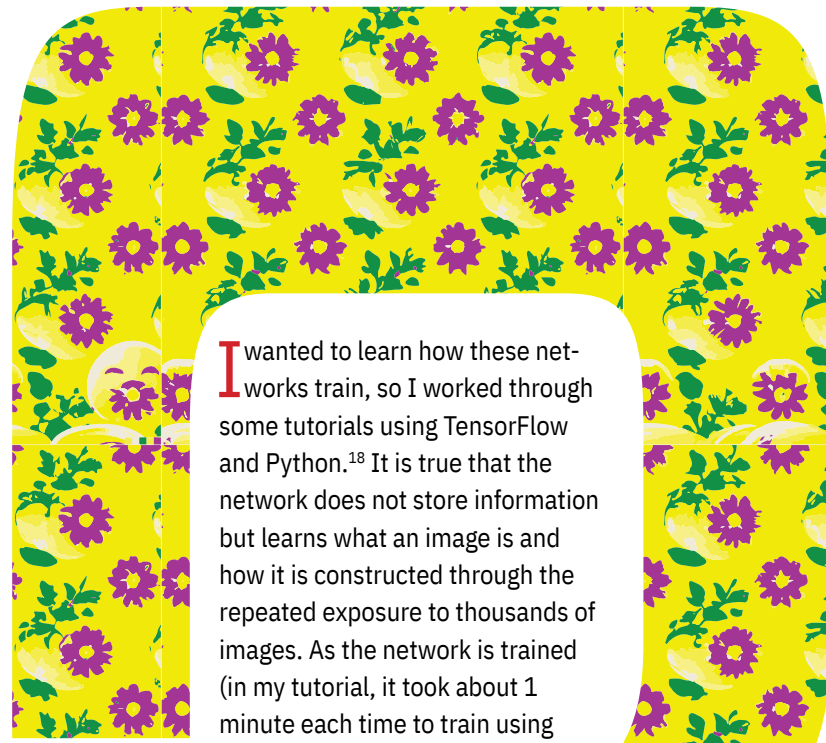
I wanted to learn how these networks train, so I worked through some tutorials using TensorFlow and Python.[18] It is true that the network does not store information but learns what an image is and how it is constructed through the repeated exposure to thousands of images. As the network is trained (in my tutorial, it took about 1 minute each time to train using a training set of 30,000 images), the pathways are formed in the network of relationships and connections, a neural-net, and the AI can then identify an image with a certain percentage of accuracy and error by predicting a result based on probabilities. The more often the AI trains, and the more times errors are identified, then the AI becomes more accurate at predicting the desired result. But, the network is not "storing" the training set of images.

So which perspective is the most correct from an ethical standpoint? If one employs a consequentialist/utilitarian ethic such as expressed by John Stuart Mill, which is most common in our contemporary Western culture alongside egoism in the vein of Ayn Rand, then the use of copyrighted images is perfectly acceptable because the end-result is not that image and the AI is simply learning the style and hallmarks of that artists' work. No one is hurt in this scenario; therefore no one need be concerned. The ends justify the means.

From the artists' perspective, one may say that they employ a more values-driven (virtue) ethic expressed by thinkers like Immanuel Kant. The duty of the AI researcher is to protect the artist and his work, and to invite them in to create the training sets willingly, instead of robbing them of that opportunity by assimilating their work into the AI project without their permission or knowledge beforehand.

On the question of whether the researchers released this technology to the general public without adequate consideration or consultation about the impact on society? The utilitarian would simply say that if they didn't release it, the other (usually a bogeyman like "the Chinese") would have and they have our best interests at heart because they are working on Utopia, and wouldn't everyone want that?

So, the boulder of AI is rolling down the hill, and we can do nothing about it now, so the artists had better get on board to help steer the technology because it's going to roll over them if they don't.

The virtue ethicist would definitely reject this argument because that boulder will run over many, many people — and that is not the kind of people we should be. Others should not be hurt, intentionally or no, in the journey toward a "Utopia" that is defined by technologists for everyone else. The damage caused is not worth a dubious result. Utopia is not the same for everyone, so not everyone would desire an AI-driven Utopia, which would be the very definition of Dystopia for many people.

Well here we are, faced with reality; one in which the boulder is rolling, whether we like it or not. The technologists pushed the thing over the edge, and it is quickly barreling down on everyone, in every industry. Most artists will not likely be able to influence the direction that boulder rolls, because most of us lack the ability and tools to do that.

In these images we can observe some of the limitations of AI image generators, and see that, yes, the tool has (1) been trained on copyrighted material, and (2) that the AI does not truly understand the context of the query very well.

When one gives an AI tool like Dall-E 2 a challenging set of instructions, in an imaginary setting where the interpretation can be very open-ended. The ambiguity in the wording of the prompt is intentional, to observe how the AI works out its guesses as to the context.

In this little experiment, I gave Dall-E 2 the following prompt:

`"A painting of a woman with a dog's head in a blue dress playing cello on a beach in the style of _____."`

I threw it a series of artist styles ranging from Picasso, Maxfield Parrish, to Manga and other artists with a distinct style. Examining these images exposes where the AI has trouble and how it "thinks".

...in the style of Picasso

...in the style of Maxfield Parrish

...in the style of Salvador Dali

...in a Manga style

...in the style of Njideka Akunyili Crosby

CAN ARTISTS USE AI ETHICALLY?

I do think there is both an ethical way to use AI responsibly as a tool, rather than using it unethically (and lazily) as a substitute for creative work. The use of AI art as an end unto itself to enhance profitability will likely happen in many business contexts. It will also be that in certain cases, there will be some increased opportunity for artists to enhance their work using these tools and to become more productive.

If one is using AI generators for tasks such as brainstorming ideas or finding inspiration to create their own work, then I think this is an ethical use, even as the generators were trained using datasets that include copyrighted material. It would be no different that gaining inspiration from a design or illustration annual, as long as the work is one's own. The AI researchers should not have created datasets in the way they did and it would have been ideal to work with artists to train the AIs; but now that they have, I see this as an acceptable compromise position. We have to live and work in the world that exists, not the one we wanted.

In this way, using AI as a tool not as the end, we artists can try to steer the boulder by advocating for ethical use to our clients who often will just settle for the AI-art (I hesitate here using the term "art" as the creation of art is a uniquely human activity) since they don't really understand the ethical considerations here. We can, and should, educate our clients so that they can see, and respect, the artists' interests and perspective.

Some of us can also become versed in the technology itself in order to help create newer AI models that do work in more ethical ways. Those artists who can understand how these tools work can be in a position to help form the next generation of tools — but not if we ignore the reality before us, or simply resist it. Similar to other technological revolutions that changed everything, there is danger and opportunity. There will be loss and pain, but there also can be something new formed from the dust of what has been crushed by the AI boulder.

NOTES

13 Wikipedia Contributors, "Uncanny Valley," Wikipedia (Wikimedia Foundation, February 20, 2019), https://en.wikipedia.org/wiki/Uncanny_valley.

14 Jacob Douglas, "These American Workers Are the Most Afraid of AI Taking Their Jobs," CNBC (CNBC, November 7, 2019), https://www.cnbc.com/2019/11/07/these-american-workers-are-the-most-afraid-of-ai-taking-their-jobs.html.

15 Proko, "What AI Developers Want Artists to Know about AI," www.youtube.com, November 16, 2022, https://www.youtube.com/watch?v=K_Bqq09K-axk.

16 Ellen Glover, "AI and Copyright Law: What We Know | Built In," builtin.com, April 18, 2023, https://builtin.com/artificial-intelligence/ai-copyright.

17 Rachel Gordon, "3 Questions: How AI Image Generators Work | MIT CSAIL," www.csail.mit.edu, October 27, 2022, https://www.csail.mit.edu/news/3-questions-how-ai-image-generators-work.

18 Get started with TensorBoard, "Get Started with TensorBoard | TensorFlow," TensorFlow, 2019, https://www.tensorflow.org/tensorboard/get_started.
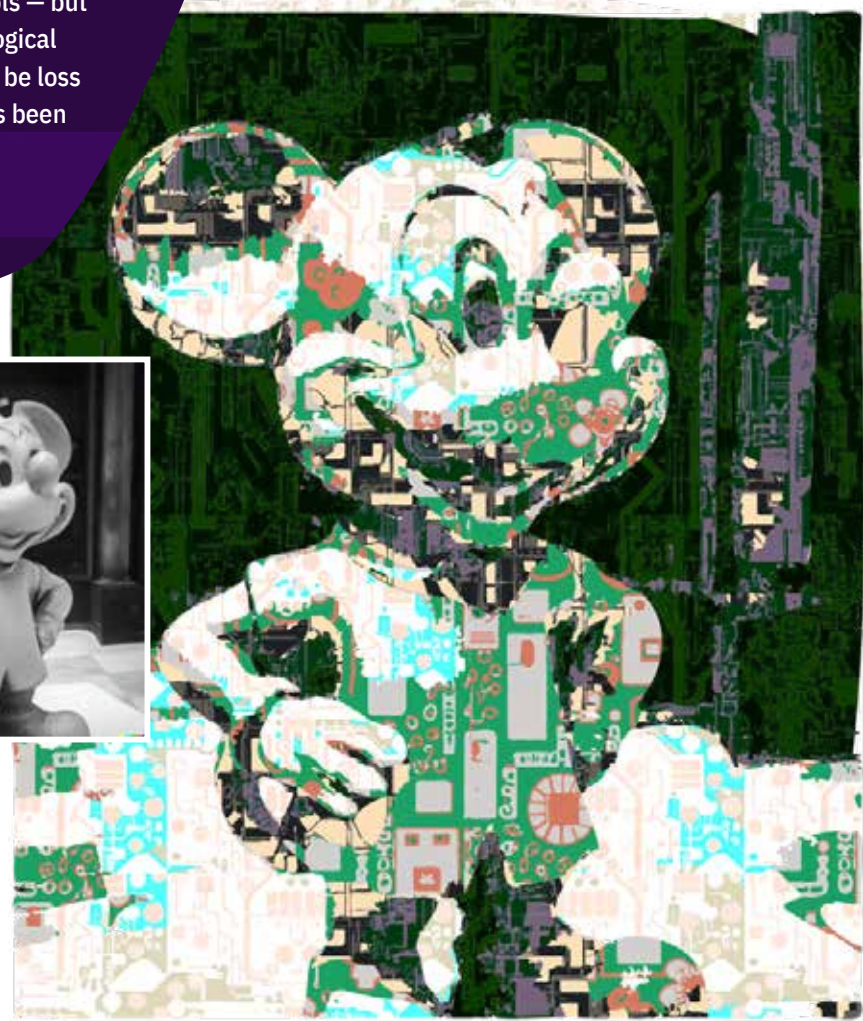
OPPOSITE: These patterns were generated by Dall-E 2, with the following prompt: "A repeating pattern with circuit boards and flowers in the style of William Morris." You will notice that the "repeating" pattern does not. At the time of this writing, the AI seems to be unable to produce repeatable complex patterns or tessellations. I find this interesting, considering that it should be natural for an AI to produce a pattern with mathematical precision.

BOTTOM RIGHT: The original image generated by Dall-E 2 with the prompt: "Mickey Mouse as a Greek Statue Monochrome." You can tell here, that the AI was trained on actual copyrighted images of Mickey Mouse, but it does represent the character with 100% accuracy."

BOTTOM LEFT: The image below was created by simplifying an AI-generated image of "Micky Mouse represented as a Greek Statue," combined in Adobe Illustrator with some of the patterns on the opposite page.
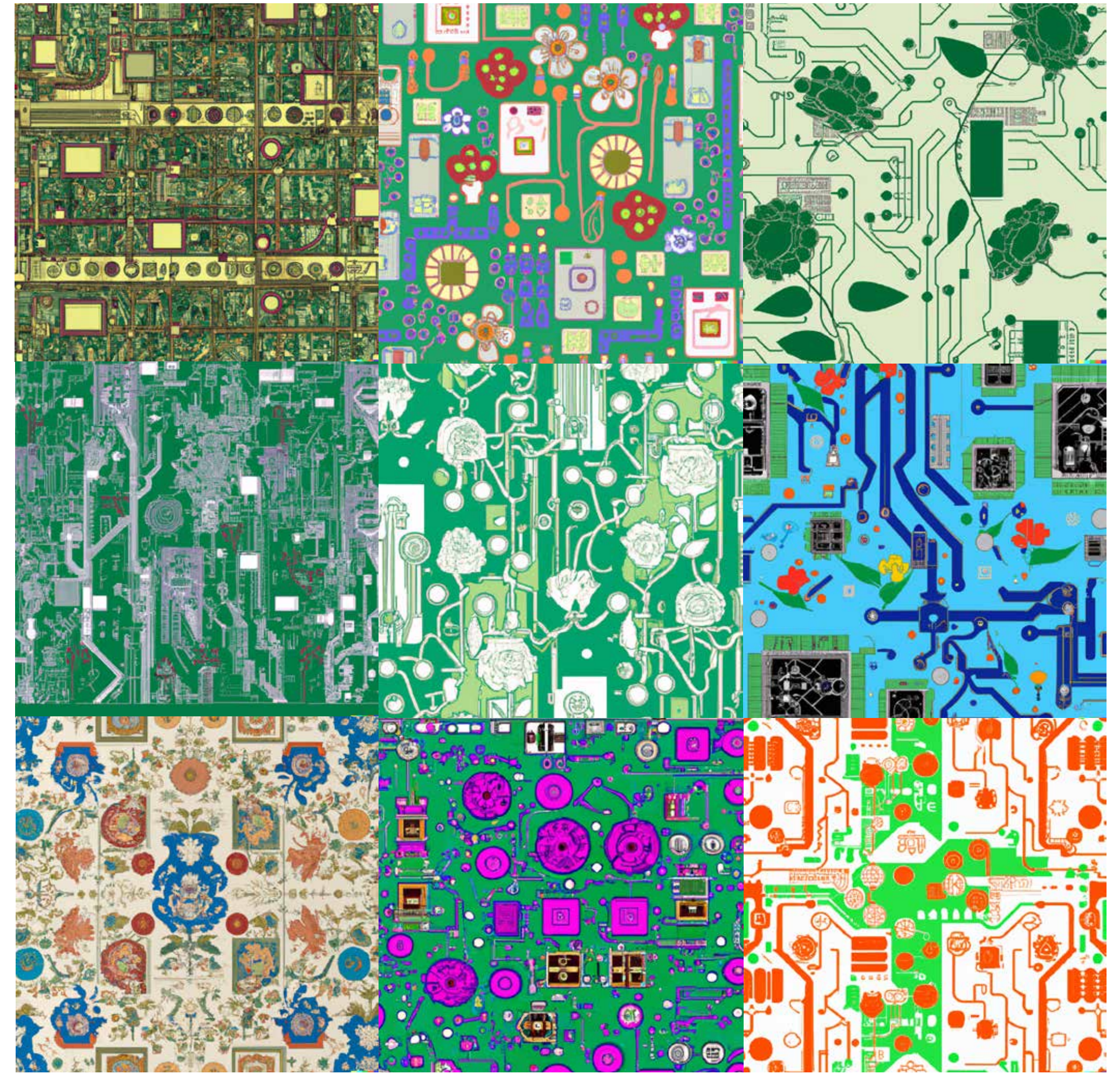
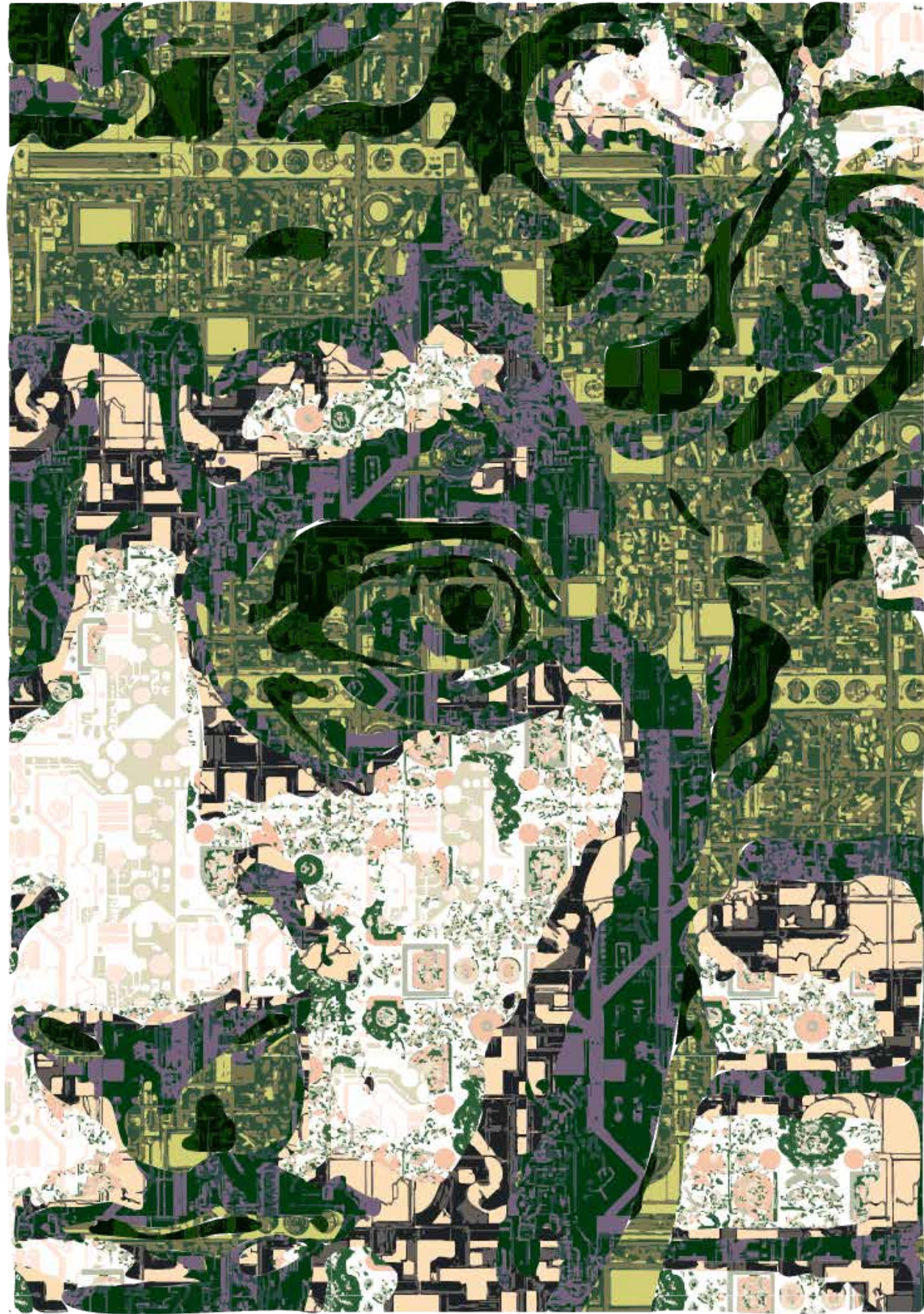**RIGHT:** Illustrations created by applying AI generated patterns to AI generated images of comic characters rendered as Greek sculptures, such as Pluto.
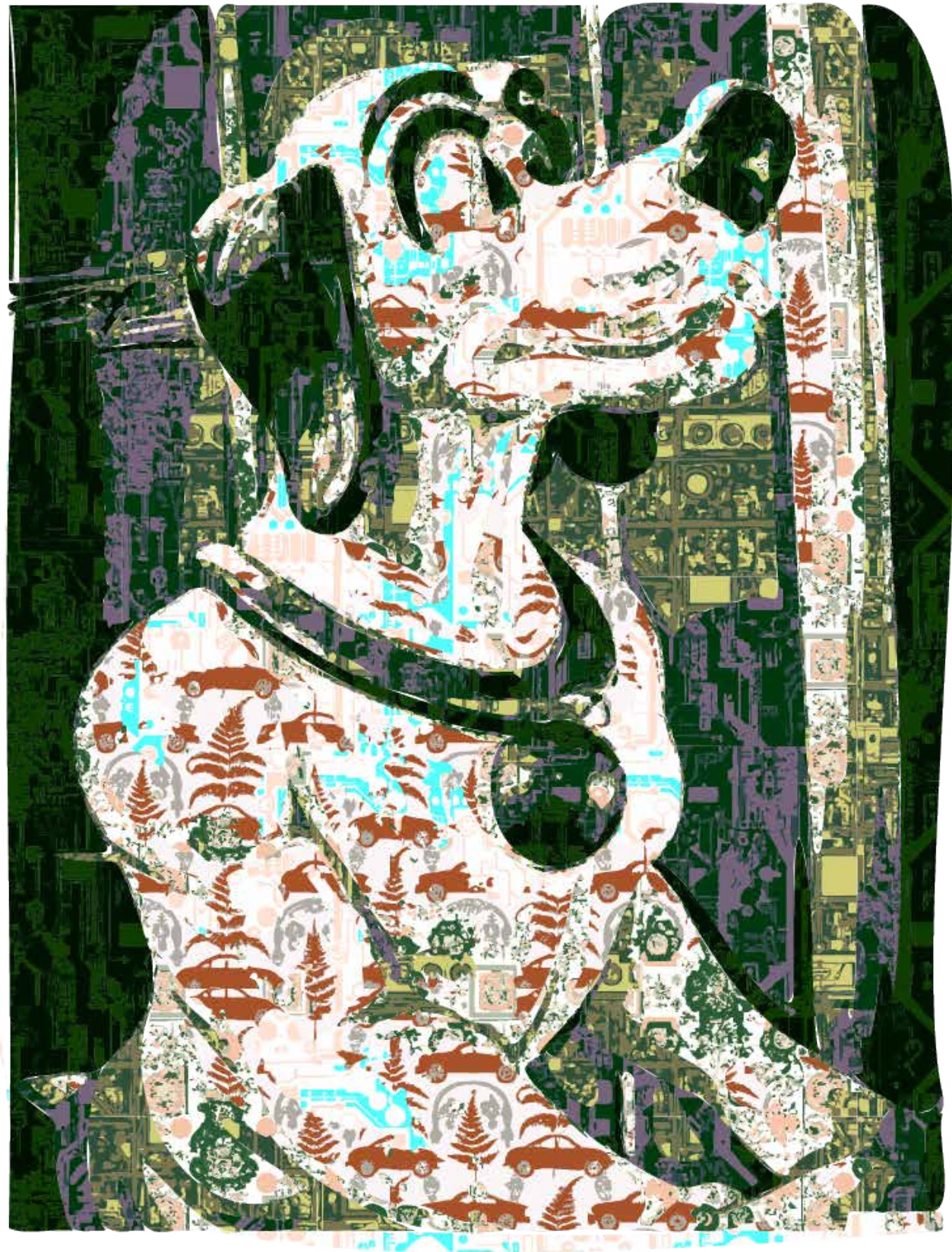
RIGHT: AI patterns applied to rendering of "Betty Boop as a Greek Statue" by Dall-E 2.
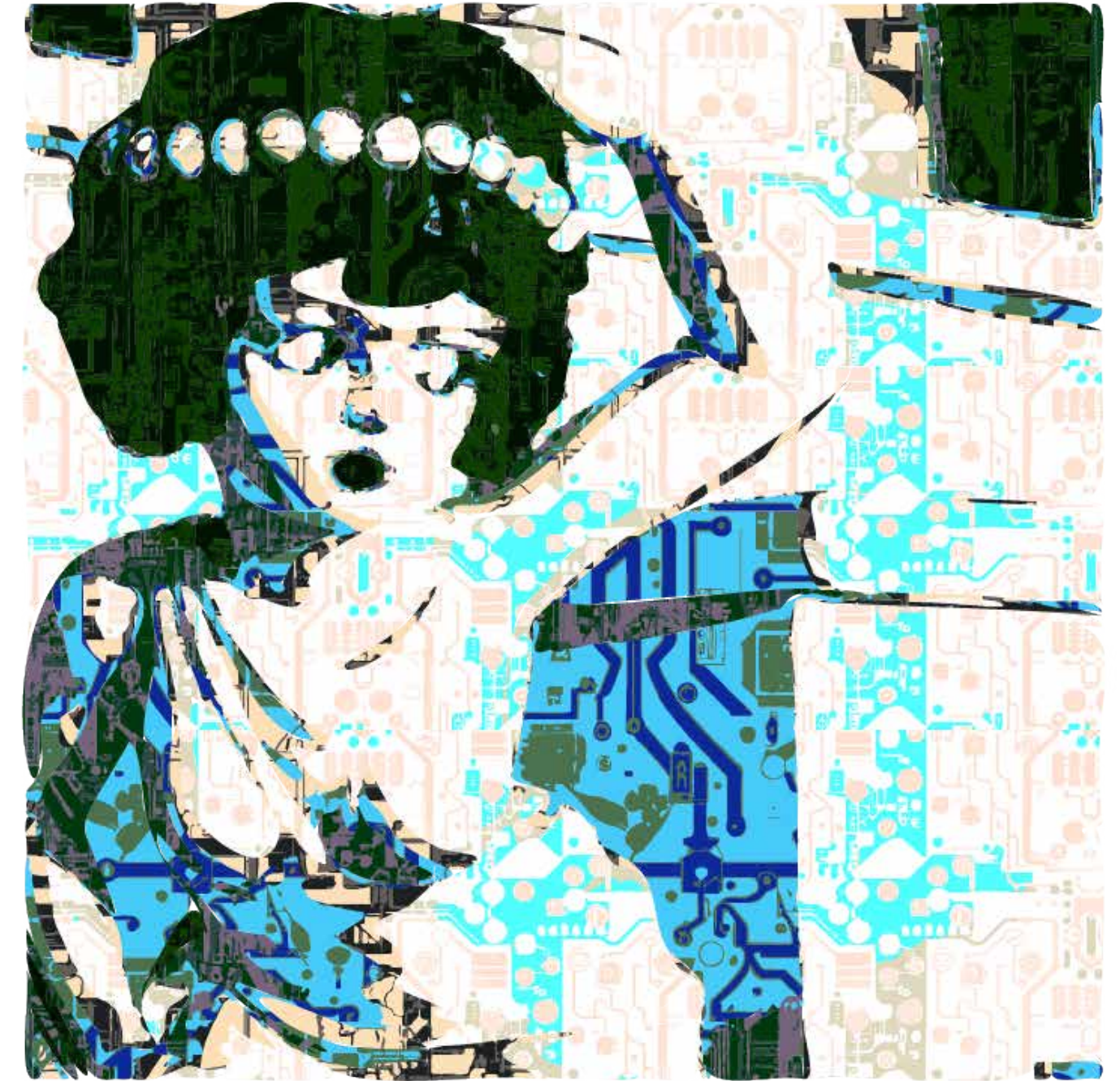
RIGHT: The AI patterns applied to public-domain images of classic sculptures, such as Michaelangelo's *David*.

RIGHT: AI patterns applied to an image of a Caryatid Statue in Vienna, Austria. Original photo by Simon Berger on Pexels.com.

Design
Subversion

The Artist
Oppressive
Technologicaly
Change

Technological advance often comes in massive waves, increasingly fast, wave upon wave — not unlike a physical tsunami. However, a tsunami gives warning in the receding of waves before the flood. We are not so lucky in regard to AI — the warning is long-past, and we are now confronting each intensifying wave — an oppressive, irresistible force of nature.

Coming in fast on the heels of other massive changes, such as the cryptocurrency boom, the AI wave threatens all known structures and frameworks we have come to rely upon and trust. THE INEVITABLE RESULT OF THIS IS AN UNRELI‐ABLE, UNTRUSTWORTHY PRESENT AND A DARKENING FUTURE UNCERTAINTY. I believe we have begun to live in fear of the future possibilities regardless of AI technologies' promise, simply because we are caught up in the chaos of crashing waves and floods of new information we do not have time to process, and the profound threat to all the institutions we have come to know.

Other technologies are similar. In the realm of commerce, the devaluation of the dollar and the rise of cryptocurrency as a viable replacement comes quickly on the heels of other crises and threatens to upend the business relationships and ways we buy and sell our products and services. As fast as the last crypto-boom, so the crypto-bust forces us to re-think what we thought we knew and trusted.

The deployment of powerful AI also empowers facial recognition technologies which are becoming more widely employed by governments to monitor its citizens and the political/social beliefs and control its activities. This is also true with cryptocurrency as governments build their own central bank controlled digital currencies alongside 'social credit scores' to further monitor and control their citizens' behavior.

AI ALSO HAS THE POTENTIAL TO EMPOWER THE FORCES THAT CONTRIBUTE TO MASSIVE INCOME AND OPPORTUNITY GAPS. This power is wielded by those who can benefit financially from these technologies, and those who cannot. Income inequality destroys opportunity for social mobility, and this, in turn, fosters massive social upheaval and unrest. We are witnessing this struggle daily around the world today, and the news cycle is full of uprisings all over the world.

All of these changes could be summed up as a general collapse, exacerbated by forces such as climate change, global recession and the re-emergence of powerful authoritarian nationalism. In my mind, a collapse is a natural occurrence featuring an indeterminate period of rapid transition from one order of things to another, experienced as a series of rapid chaotic societal, technological and environmental changes resulting in mass social upheaval.
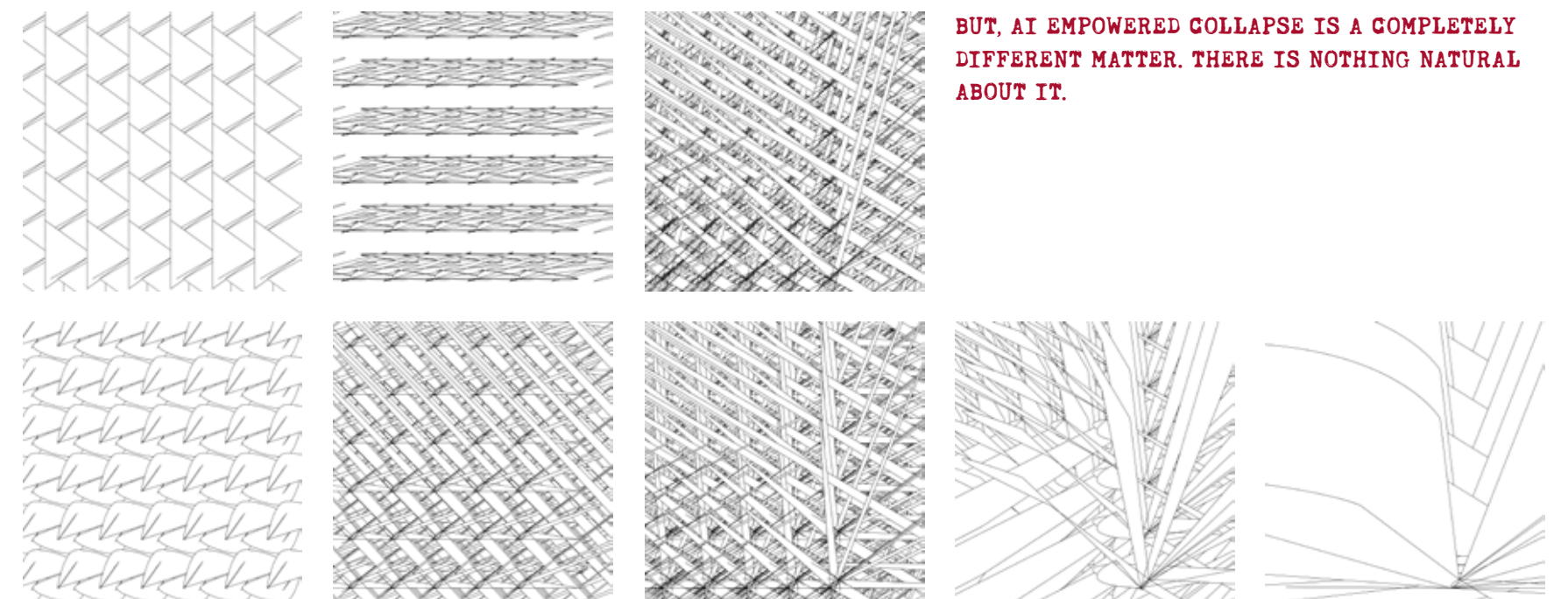
BUT, AI EMPOWERED COLLAPSE IS A COMPLETELY DIFFERENT MATTER. THERE IS NOTHING NATURAL ABOUT IT.

LEFT: Illustration created in Adobe Illustrator based on an initial reference image generated by ChatGPT 4. The background pattern was created using altered JavaScript code using the p5js library generated by the same ChatGPT 4 tool. I basically "broke" the AI's code producing an interesting set of patterns (see above examples at TOP),

DESIGNERS ATTEMPT TO CREATE ORDER FROM CHAOS. We, like other artists, attempt to interpret what we experience into means by which others can understand and interact. As noted by many, design is also an act of subversion — an attempt to undermine a structure to create a new, hopefully better, one.

We aim to gain an audiences' attention with the work so that the subversion can do its job of re-ordering, so we seek an aesthetic that grabs that attention. Leonard Cohen said that "ANY STARTLING PIECE OF WORK HAS A SUBVERSIVE ELEMENT IN IT, A DELICIOUS ELEMENT OFTEN. Subversion is only disagreeable when it manifests in political or social activity." Designers such as I would easily agree with the first part but disagree with the second. As designers we seek activity/action inspired by our work, be it commercial, social or political, and our aim is to manifest our subversion to get what we seek. Therefore, our subversion is not a disagreeable thing to us.

Perhaps what is disagreeable is an attempt at subversion that lacks aesthetic beauty and is simplistic or shallow. The best subversion occurs when the audience is part of the subversion through the ways they might interpret the work if invested just a little more deeply than a superficial encounter with it.

I ALSO BELIEVE THAT THE BEST SUBVERSION USES SIGNIFICANT ELEMENTS OF THE VERY STRUCTURE WE ARE ATTEMPTING TO SUBVERT. One therefore subverts best from an insider's perspective and knowledge, rather than from without. I would argue that this insider-knowledge and investment is essential in subversion — to do otherwise is to merely critique from a place of ignorance. And critique is not the same as subversion.

AI AND THE NEW TECHNOLOGIES ARE RIPE FOR SUBVERSION. They carry within them the tools for their own decline or even demise. Much handwringing has been done recently around the use and ethics of AI image generation.

How might a designer do this? AI seeks to algorithmically produce an "answer" to an inquiry. One approach is to inquire, and then undermine the answer through work that intentionally contradicts it.

ONE MIGHT EMPLOY THE TOOL ITSELF INTO WORK THAT CRITIQUES IT. The AI engine is not intelligent enough to understand what it is producing. It is only producing results based on a large body of inputs and those categorized in distinct taxonomies which it is trained on, hoping the user will find the answer to be satisfactory.

Often it isn't. The result is that, over time, results will become essentially the same, like a kind of homogeneous "gray goo." For example, as more users accept "beauty" represented by white female figures and floral designs, almost all queries to beauty will produce similar, "generic" white women wearing flowers.

IMAGERY PRODUCED BY AI WILL EVENTUALLY BECOME MORE SIMILAR TO EVERY OTHER USERS' RESULTS, CATERING TO THE LOWEST COMMON DENOMINATOR OF TASTE, THEREBY CREATING AN ECHO-CHAMBER OF IMAGERY AND AESTHETICS.

So, the designer looking to subvert the AI algorithms might include the resulting image or text as a seed of a deeper question. Following a thread through from one result to another, one will likely encounter something new and perhaps exciting. This could inform new material incorporated into the designer's own compositions. IF ONE IS SUBVERTING, ONE DOES NOT TAKE THE "ANSWER" THE AI PRODUCES AS GOSPEL, BUT AS AN INGREDIENT IN SOME NEW LARGER TRUTH EXPRESSED BY THE ARTIST.

MASSIV E'SUN MI ASS IVETSU NAMIMA

WE live IN an AGE of booming technological ADVANCE, which SEEMS to COME in MASSIVE waves, INCREASINGLY fast, WAVE upon WAVE NOT unlike A physical TSUNAMI.

THE ART OF CHAT GPT CODE WRITING

Prompt: *Write a JavaScript function that can take any input text and convert it to iambic pentameter.*

ChatGpt 3 fails produce the desired result since it does not rephrase the text to fit poetically, but does provide a helpful algorithm which could be used to create something new and interesting. The AI can write poetically as seen at left, but it does not seem to be able to write code to do it successfully. Used as an ingredient in other creative work, the failure helps subvert itself.

The typographic composition on the previous page was created in Adobe Illustrator by manipulating the image below which was generated by ChatGPT 4 with Dall-E, using the output code shown at right. There is just enough of the giant wave revealed in the distressed font to create an interesting texture that has dynamic movement.

CODE INPUT: We live in an age of booming technological advance, which seems to come in massive waves, increasingly fast, wave upon wave not unlike a physical tsunami.

CODE OUTPUT: WE live IN an AGE of booming technological ADVANCE, which SEEMS to COME in MASSIVE waves, INCREASINGLY fast, WAVE upon WAVE NOT unlike A physical TSUNAMI.

```javascript
function toIambicPentameter(text) {
    const words = text.split(' ');
    // Function to check if a word is
    stressed or unstressed
    function isStressed(word) {
        return word.endsWith('tion') ||
        word.endsWith('ing') || word.
        endsWith('ed');
    }
    let iambicText = '';
    let stressed = true;
    for (let i = 0; i < words.length; i++) {
        const word = words[i];
        const isCurrentWordStressed =
        isStressed(word);
        if (stressed && !isCurrentWordStressed) {
            iambicText += word.toUpperCase() + ' ';
        } else if (!stressed &&
        isCurrentWordStressed) {
            iambicText += word.toLowerCase() + ' ';
        } else {
            iambicText += word + ' ';
        }
    };
    // Toggle the stressed variable for the
    next word
    stressed = !stressed;
};
return iambicText.trim();
```

ANY STARTLING PIECE OF WORK HAS A SUBVERSIVE ELEMENT IN IT

LEONARD COHEN

THE RISE OF TECHNO-DEHUMANISM

I am consistently astounded with parallels in history. Every hundred years or so, we seem to be playing the same chorus from a shared songbook.[19] I have been particularly interested in the end of the 19th Century into the early 20th. I can think of so many parallels to our own day, from massive income disparities or advances in communications technology to name a couple. I am not going to go into those here, but I am sure you can think of a few of your own parallels as well.[20]

Theories abound as to what the cause of all this is and most people who study history have made some interesting cases as to why or how these machinations happen. From "history repeating" to "history rhyming," the music of time seems to at least have some sweet hooks in the chorus.

WHAT HISTORY IS: HUMANS BEING HUMAN.

Not to be confused with the progress of time in general, wherein everything changes over the eons at a geologic/astronomical pace, History is the story we tell ourselves about ourselves. Usually authored by the dominant society, the canonical story and the various counter-stories largely focuses on one major theme: our humanity, and how we either advance it or betray it. (We usually betray it, unfortunately. More on that later.)

We humans haven't really evolved that much in the blink-of-an-eye we have walked this planet on two legs. We follow prescribed patterns that are inherited and programmed into our genome, like every mammal. But we also have a cultural memory that seems to be inherited epigenetically, a feature which is unique to humans as far as we know.[21] Carl Jung called this memory archetypes — inherited stories and identities that play in the background of our minds.[22] The shared stories influence our actions and decisions through working on our emotions to our prefrontal cortex, where (rational?) judgment is made. All of this is filtered through who we think we are, our shared identities.

The result of this is that on the larger scale of statistical relevance, humans are extremely predictable *en masse*. As a group, we can be counted-upon to respond to certain events in predictable ways. Events like famines, environmental changes, pandemics, and migrations cause things like wars over resources. They also cause major technological change.

One of the major distinctives of humanity is that we are extremely vulnerable biologically but are also able to adapt through our use of creativity and technology to almost any environment. This allows people to thrive in extreme places, places like deserts like the Sahara and in the Siberian tundra. We use that technology to cover our relatively hairless bodies, keep us from the elements, locate and cultivate food, enable mass migration, and wage war.

It's the tie to our technology, creativity, and our ability to survive and thrive anywhere that drives our common story. One could argue that this ability to develop new creative technology to solve our problems is one of the main things that make us human.[23]

Technology allows us to do great things when we use it to advance our humanity. It's also our use of technology that often leads us to do inhuman things — to betray our humanity.

We have created machines wherein we no longer have to stare our enemy in the eye to kill him. From the longbow to the autonomous drone, we have distanced ourselves from our destructive capacity and our numbed our consciences. We have gone from (simply?) burning villages and pillaging our neighbors to being able to create radioactive tsunamis that can destroy entire nations for nothing more than scorched-earth retribution.

We have used technology to drive the growth of cities and create prosperity, and now that same growth has led to irreversible ecological catastrophe as well as widespread poverty. Our over-use of technology and non-renewable energy has created mass-extinctions and drained our planet's resources for the sake of constant economic growth. Our very survival as a species is now itself threatened.[24] What kind of technological nightmare have we wrought where a possibly necessary solution to this problem is leaving the planet and colonizing another one!?!?

Technology has become an end to itself, and now we are beginning to merge ourselves biologically and irreversibly with it while ignoring the natural laws of unintended consequences — karma if you want to call it that.
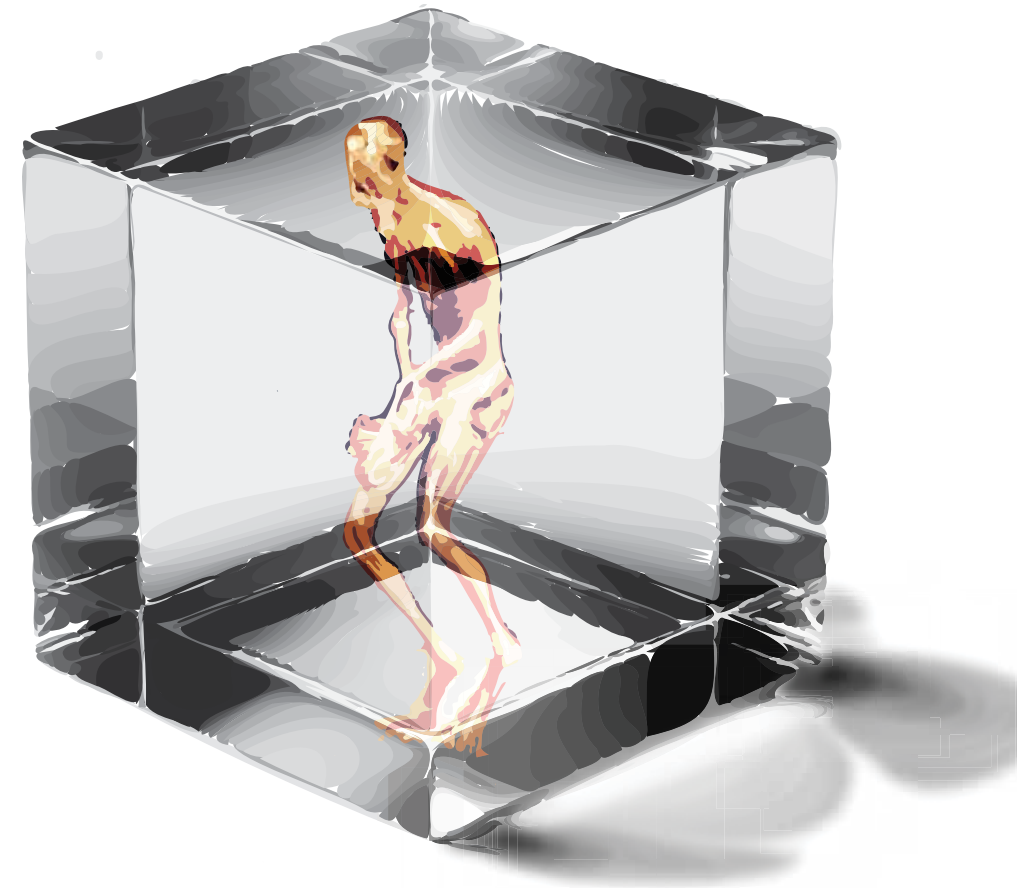
The World Economic Forum as written extensively about a Fourth Industrial Revolution.[25] Major advances in industrial technology impacting our economic realities has been termed an "Industrial Revolution" as we talk about history in the Western World. The first three has been responsible for both creating a boom in our standard of living (in the Western World), a boom in our global (over) population, and also the above technological atrocities.

A major feature of the Fourth Industrial Revolution is termed transhumanism.[26] Each industrial revolution dovetails with the last, the next phase of that development involves specifically how our computerized machines merge with our own bodies to create super-humans. Never before has there been such a profound merging as what we are beginning to experience. There have been tiny steps forward, but never before has there been the ability to impact human biology so deeply, changing what we even call human.

Technological change is moving at a pace which overwhelms and surpasses our own natural ability to adapt to that change. While in the past we used technology to adapt to external change outside of our control, we now have a situation in which the technology itself is creating external changes we can no longer control. We no longer have the time or ability to understand the changes and make better decisions about them.[27] We are in the position today to simply accept them as we are able or be left behind in the dustbin of history.

The ability to accept, control and incorporate these technologies at the current accelerating pace is directly related to how much we can afford it economically. Our forms of education, driven by the need to control our technology and make use of it economically is also changing apace, and the skyrocketing cost of it is creating a situation wherein those who have the knowledge and ability to understand the technology (and incorporate it wisely?) cannot afford to do so.

Who is left to be able to benefit from this kind of technological change is a rapidly narrowing group of people who have the economic power to incorporate the technology into their lives while lacking the will or wisdom to know how to do it without causing disastrous results for those who cannot. The irrational exuberance (to borrow a term) of the World Economic Forum (WEF) evangelists seems to ignore this or

downplay it far too much. Additionally, these same people are mostly made up of Western European White, mostly male, billionaires (and a monarch or two) who can throw around numbers and economic costs in the Trillions (Quadrillions even) without blinking.

I personally cannot help but reflect on the warnings trumpeted in other eras of radical historical change, such as those at the close of the 19th Century and the Second Industrial Revolution. H.G. Wells' book The Time Machine (1895), which I read multiple times as a kid offers one such warning about the consequences of this very problem. (I was, and still am, in awe of H.G. Wells' stories.)

In the book, the protagonist and inventor of the time machine, an anonymous time-traveler living in present Victorian England, visits a future where the upper-class who can benefit economically from advancement in technology becomes a new race, the Morlocks. These have become physically altered by industrial technology into a species that feeds on the lower-class of people, the Eloi, by raising them as livestock. The Morlocks also seem invulnerable, while the Eloi are exactly the opposite. The Eloi live peacefully in what seems to be an Eden. The Morlocks live underground in a dark industrial complex, a vision of Hell.

The warning of this story cannot be clearer. Misuse of technology that creates deep separation between those who can benefit and those who cannot benefit will create a nightmarish world where technology advanced beyond human ethical/moral safeguards. Moreover, it alters their very humanity.

To me, that seems much too close to what is described in The Fourth Industrial Revolution, authored by Dr. Klaus Schwab, the founder and chairman of the WEF, and in other writings of the WEF. It seems much too close to what we are beginning to experience now. If the new world is as described in these books and articles, the lower classes will live in a kind of Edenic world in which all needs for survival and prosperity are met by our technology and upper-class benefactors who are embedded in government, as they are today.

THEY WILL BECOME A KIND OF LIVESTOCK FOR THE ECONOMY.
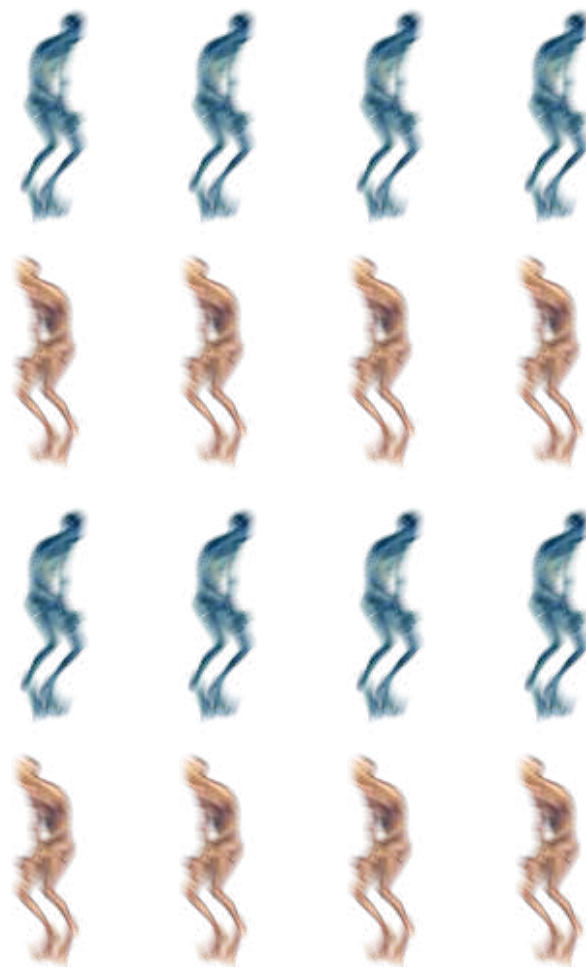
Technology and public policy will be deployed that will force the phase-out the use of non-renewable energy (not a terrible thing) and societal compliance will be enforced via central bank digital currencies and "social credit scores" (a terrifying thing).[28] Artificial Intelligence (AI) and Artificial General Intelligence (AGI) will phase out most "menial" tasks and jobs, thereby allowing us to enjoy a more balanced life unencumbered by the need to labor for one's livelihood. Universal Basic Income distributed to citizens by governments will take the place of employment for many people.

In this future, we will merge seamlessly with our machines. Nanotechnology will create smart-materials and miniature machines swimming through our bloodstream will eliminate disease before it happens. Aging, now considered a disease by the World Health Organization and proposed to be added to the ICD-11 manual of diseases,[29] will be conquered. One might live for 150-500 years. Ownership of private property will be a thing of the past for most people, and a rental-economy will prevail where one would never need to own anything at all, whether it be houses, cars, or even our clothing.

Sounds great — but there's a catch.

Most of these optimistic options will be available to those who can afford it. The rest will have limited to no access to these new technologies or it will be forced upon them "for the greater good."

Not as an option. Personal freedom and autonomy, another main ingredient in what makes us human, seems to be expendable in this model of the future. Those who resist these changes forced upon them will be considered outcasts and become nomads — discontents — barely able to survive outside of the megacities.[30]

Hunger Games anyone?

"You will own nothing and be happy" is a much-misquoted line by contemporary right-wing conspiracy theorists often attributed to Klaus Schwab. That line, however, was originated in a 2016 essay included in the video "8 Predictions for the World in 2030" by Danish MP Ida Auken and produced by the WEF.[31] It's the same essay that also describes those who choose not to comply with the new order as discontents, scraping-by in the countryside outside of society.

In this case, the conspiracy theorists have some valid concerns, as I do. When I researched this on what is publicly available on the WEF website, the descriptions by WEF thought-leaders and business-leaders is very consistent with what I described above. The rationale for this "Great Reset" necessitating this new world and its systems is caused by global climate change and triggered by the COVID-19 pandemic. The urgency is palpable in the writings all over the World Economic Forum website and in all of the books and materials associated with the WEF.

You can see these changes beginning today. In many ways, we are experiencing the early phases of this kind of world, the Great Reset, which is not far off into the future.[32]

WE WILL MERGE SEAMLESSLY WITH OUR MACHINES

OR DEHUMANISM?

So let's return to where I started with transhumanism, and ask has technology become an end to itself? It certainly seems like it to me. We have always used technology to enhance adaptation at our current level of evolution, but now we are using it to force a new evolution, as many transhumanists describe it. But it's not "simply" our biology being transformed, but every aspect of human experience. When one reads the materials from the technology evangelists above, one gets a distinct feeling that the answer is always technology, specifically "smart"/digital technology.

Currently, our addiction to smart technologies (now seamlessly embedded with artificial intelligence) is making us collectively dumber. While it might seem ironic, it really isn't. We lack the basic skills of survival, separated as we are from needing to know these skills by a couple hundred-plus years of industrial progress. After all, who needs to know these arcane things when we can just Google them or learn how on YouTube when we need to do something, or ask an AI?

But there's another question not often considered: What happens to us when we are separated from our technology? Answer: mental illness. From nomophobia[33] and memory impairment[34] to our relationships and ability to experience empathy,[35] is it any wonder we are increasingly becoming a society of ignorant, narcissistic psychopaths.

The damage to memory and empathy is what concerns me most. Scientifically and philosophically speaking, our memory is the major component of our consciousness. Our empathy is the major component of what makes us social beings and what enables us to survive as a species. As social beings, we cannot do without either of these. Damage to memory and empathy is the very description of extreme psychosis.

This psychosis can be observed in what we know to be true or not and in our current state of polarization. It's also observable in the violence we are exposed to daily. We no longer have a marketplace of ideas; we have a circus of gladiatorial ideological combat. We no longer know what is true or are able to distinguish between falsehoods or truth. We cannot use our own technology to discern what the truth is either, because the algorithms have muddied the waters and created filters for our own desired version of the truth. The technology is not trustworthy. It is deceptive. "Deepfakes" and AI are rapidly creating a reality we cannot distinguish from fantasy.[36] Logically, we simply give up and take sides and demonize all others. It's the only thing we can do about it where we still feel we have some level of control.

Our dependence on digital technology puts us all at great risk. I am not a Luddite, and I myself benefit greatly from digital technology. But, just as the prophets of the past have warned us, I fear a reckoning of that dependence. The issue is not the technology itself — it's our literal dependence on these digital technologies for our survival which is the issue.

One of the major problems with our current state of digital technology is its fragility. We may not think it, but the networks we depend on for most of these smart devices we depend on is extremely vulnerable to failure. Cyberattacks, our outdated electrical grid, and the propensity of government interference and control of this infrastructure is a very real threat.[37] And, since we depend on this technology for our literal survival, can we afford to be so vulnerable? Humans are naturally vulnerable as dictated by our own biology as it is.

So is the answer to these problems a physical merger with that same, vulnerable, technology?[38]

How about the other changes described above and caused by digital smart technologies such as AI or digital currencies? Each single technology in and of itself may seem innocuous but isn't. This forces us to make choices that are not ethically/morally neutral, while it seems they are on the surface. We lack the time to evaluate them and consider the consequences. The pace of change is just too quick.

Each aspect of these technologies alone constitutes a sea-change in our human experience. Taken together, seemingly at once, that sea-change is a tsunami threatening to flood our humanity. If our biological mandate is to survive and thrive, we have now created a situation where that is at threat by our own hand.

We have betrayed our humanity, not advanced it.
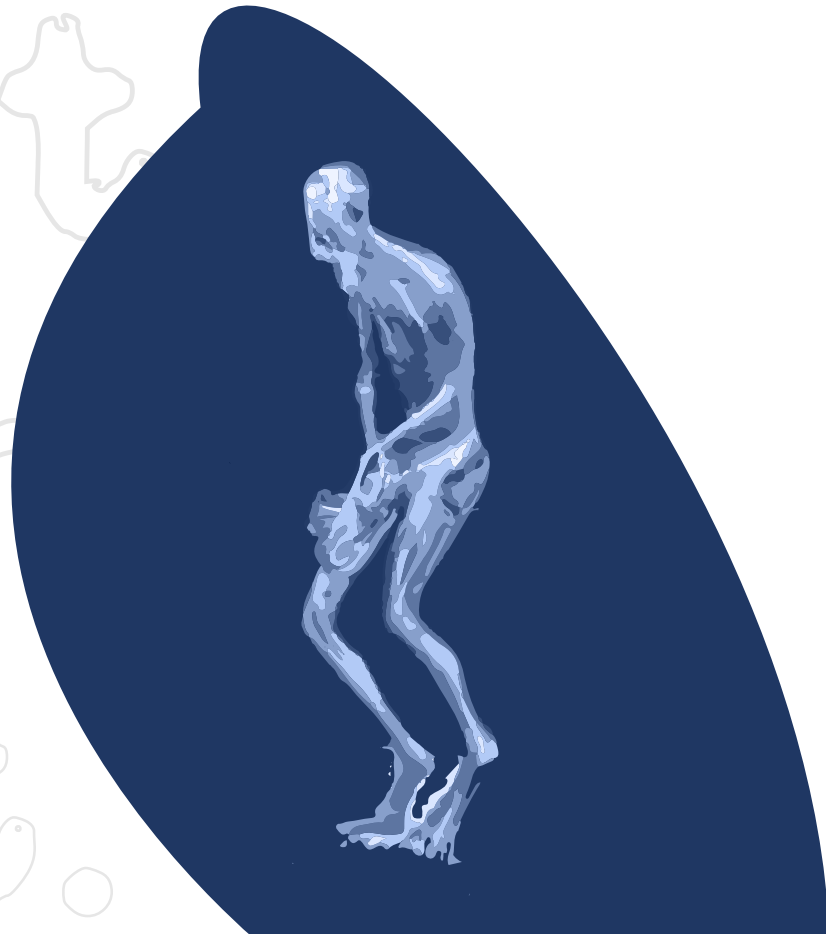
WHAT A BUMMER. HERE ARE SOME STRANDS OF HOPE.

Admittedly, I have sketched out a future and current situation that seems deeply despairing. And in may ways, it is. However, we have faced massive changes before, though probably not quite as wide-reaching and rapid. I started with a few thoughts about history, and how I think it works. Returning to that theme, and how we can learn from it, examples from of that history can give us some pointers.

During the 19th Century, income inequality was at a much more extreme level than it is even today. One way to measure historical inequality is the Gini index,[39] where 0 represents perfect equality and 1 perfect inequality. In 1890s America, the Gini index was between 0.45 and 0.5, while today it is estimated to be around 0.35. In both cases the inequality in the U.S. is higher than most other industrialized countries, though it was worse at the turn of the 20th Century. In England, it is estimated that the Gini index was 0.52 to 0.58 and is estimated at 0.326 as of 2022. Workers generally had it worse in England in the 1890s than here in the U.S.[40]

It is in this environment in the Victorian era where I became interested in William Morris and the Arts and Crafts Movement. Morris, in his earlier years was a Romantic poet and artist, later became involved in politics and believed that everyone should be able to afford beautiful, useful things in their home, no matter their class. At the time, social mobility in England was trapped in a class system where it was socially unacceptable for a lower-class worker to even address a member of the upper-class gentry. A person who broke the rules of class could be ostracized or possibly imprisoned.[41]

Morris became involved politically as a socialist through the influence of John Ruskin, another artist and writer who introduced Morris to Marxist thought. Morris was originally a member of the upper classes, his father was a prominent businessman who was also involved in political reform movements but became an avid supporter of workers movements through the Social Democratic Federation and the Socialist League. His own desires were that anyone be able to afford his work, though in practicality his work was typically unaffordable for most.[42]

He did have several radical ideas about design and how to make it accessible.[43] For example, he not only sold embroidered tablecloths and the like, but also sold "embroidery kits" where someone could complete his designs. These were semi-completed to start the purchaser on the design printed into the cloth like a paint-by-numbers kit and included the colored flax. I can see here a kind of creative solution that attempted to subvert the ideas of what a finished good could be, how it could be sold, and how a common person might acquire something beautiful through the work of their own, human, hands.

His overall management of his own workers was also subversive. Workers had much better working conditions and enjoyed much more creative flexibility. His daughters both played important parts of the Arts and Crafts movements and the business, and May Morris became the head of the embroidery department. Mostly employing women, much of the production was done via cottage industry in the home — like remote workers today. It allowed women to both work and take care of their children and homes at the same time. May Morris also came to the U.S. and lectured at the Art Institute of Chicago, influencing many artists in America too.[44]

I have been reflecting on William Morris and other artists of this period, since they worked at a time when the world was experiencing a major sea-change economically, driven by technology. At one hand, the technology created massive problems — on the other it began to significantly improve the lives of common people in both England and the U.S. And I think the success of their ideas was in a similar vein: recapturing what it means to be human in a dehumanizing world.

Newton's Third Law of physics states that for every action, there is an equal and opposite reaction.[45] I think that can also apply in the realm of social and technological change in a way. In Morris' day, his work was a reaction to the commodification and degradation of the ordinary through mass industrialization. He desired to celebrate the beauty of humanity in the "mundane" and elevate the ordinary in a way in which contemporary industrial methods of production could not. He often sacrificed profitability (as well as his ideals of true affordability) to do it. He may not have been able to succeed with his whole vision, but the ideas drove others to work for the same ideal. He found ways to produce work as a kind of protest, a subversion, of a dehumanizing threat through elevating art, and working hard to find ways to both work with the system and against it.

I have painted a pretty bleak picture of the dehumanizing effect of our modern technology in this essay. But I also think there is an opportunity to react to this overwhelming technological change in a way that preserves and restores some of our humanity too. I think things like reviving analog production methods, intentionally slowing our processes down; alongside working with the new technology as a tool, not as an end, are promising possibilities. Combining these things will produce new, surprising work — which may begin to subvert the new system.

The new changes are coming so fast, and I don't really have any fantasies about completely overcoming the tsunami that threatens our humanity. I am not even entirely sure of where one can make a "dent in the universe" here (to reference Steve Jobs).[46] But I think in the study and rediscovery of another time of radical change, we might find a few clues.

And, through it we might find a small way to preserve what we have left of what makes us human.

Amalie Seckbach. "Portrait of a Woman among Sunflowers,", pastel and watercolor on paper, 1944.

TRUTH AND BEAUTY CONFRONTING DEHUMANISM

When the artist confronts uncomfortable truths in our world, they may be tempted to retreat into a kind of superficiality, by denying it or minimizing it. "After all," they may say, "what can I do about it?" Others who confront the truth will desire to respond in some way that is more meaningful, but may not understand how.

I assert that there is a way for artists to confront the forces of dehumanizing technology in a way that does not betray our humanity or force us to retreat into superficiality. I believe that the path toward this other way must go through the valley of truth and find beauty in it.

Beauty is always in some way present in the world in spite of dehumanizing truths — and the artist is by nature gifted to find it and represent that beauty to the world. Even in the darkest days of our human history, artists have pointed to something better, something beautiful. For example, during the Jewish Holocaust during World War II, some Jewish women in the concentration death camps created clandestine art and sometimes exchanged art for food with the guards. Through this act of artistic rebellion, these Jewish artists found a way to transcend the truth of what they were experiencing while finding what beauty they could in spite of their suffering.[47]

One needs to look deeply into their source — that which gives life ultimate meaning — for guidance. While unique to each individual, this guidance may be inspired by the human and natural world. It may even be inspired by a sense of or belief in the divine or by some deep personal philosophy. I would simply encourage looking deep into themselves to find this source, remain true to it, and explore where it leads.

Just as the artists in William Morris' day looked to their sources and sought to capture beauty in the truth of materials and processes as a response to the artificiality of industrialism, we are also able to find beauty in our world and work if we look hard enough for it. We can do this by looking to what makes our work authentic and not rely on the easy path of artificiality, even when using the technological tools that make such artifice convenient.

True beauty does not ignore or deny truth. It incorporates truth so that the authenticity of the work can speak for itself and truly be said to be beautiful.

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Deep

Deep Disinformation

One of the major issues raised by the use of generative Artificial Intelligence imagery is the use of the technology to manipulate people and spread disinformation, especially in the form of "deepfake" photos or video. Arising around 2017 deepfakes used compromised pornographic videos that swapped well-known female actresses onto porn actors' bodies. "By 2019, a startup reported that approximately 96 percent of deepfakes are pornographic and disproportionately victimize women, casting them in humiliating, violent situations and exposing them to rape and death threats."[48] According to Richard L. Hasen of University of California, Irvine School of Law, this technology is a major threat to the integrity of our democratic processes and laws.[49]

In our increasingly image-oriented, some might say (hyperbolically) "post-literate" society, the use of artwork, photography, and video are incredibly powerful. [50] One of my personal concerns is how damaging visual disinformation is when considering that most people lack training in basic critical thinking. We especially trust the evidence of our eyes, though other senses can be equally significant.[51] What happens to our understanding of reality when we cannot trust our eyes or our ears and other senses to distinguish reality? What happens to a society when no one can agree on what is real?

According to a 1999 study's conclusion, "Human visual preferences are not fully determined by (objective) structural regularities of image stimuli but also depend on their learned (subjective) interpretation. These two aspects are reflected in distinct complementary factors underlying preference judgments and may be related to complementary modes of visual processing in the brain."[52] In other words, our learned beliefs have a large impact on what kinds of imagery we prefer and how we interpret them.

Algorithmically-driven social media has contributed greatly to our susceptibility to visual misinformation because of how it presents information according to a user's behavior and how that user responds to input. We are presented with information that corresponds to our prior beliefs, reinforcing that belief whether it is objectively accurate or not. Furthermore, the sheer mass of information presented to a user contributes to that user's sense of overwhelm, thereby cementing cognitive bias.[53] A user will tend to pay more attention to information that reinforces prior belief.

Adding to the problem, social media has weaponized information in the service of generating profits. This is sometimes called the "attention economy." Money is made by taking advantage of users' attention in order to present advertising. The advertisers are the customers of these social platforms, and the users' attention is the product sold to them. Jaron Lanier, a pioneer in the development of social media and a techno-philosopher, states that, "The mass behaviour [sic] modification machine is rented out to make money."[54]

RIGHT: When former president Donald Trump was indicted for election interference in March 2023, these deepfake images spread throughout the Internet on Twitter[57]

If that weren't enough of an issue, many social media profiles are made up of "bots" – AI fakes. These aren't actual humans but the average user is unable to detect that they are interacting with a bot. Again, Jaron Lanier levels this criticism:

"This component is almost always present, even though it typically wasn't part of the initial design of a Bummer machine (social media platform). Fake people are present in unknown but vast numbers and establish the ambiance. Bots, AIs, agents, fake reviewers, fake friends, fake followers, fake posters, automated catfishers: a menagerie of wraiths… Invisible social vandalism ensues. Social pressure, which is so influential in human psychology and behavior, is synthesized."[55]

A major concern of mine and others is the destabilizing effect of this use of AI tools to create misinformation. It undermines an individual's ability to discern truth and even one's perception of reality itself. This increases the fracturing of social values and norms which govern behavior, and further divides communities which may be easily misled and even encouraged toward violence. Without some baseline understanding of what is true and real, there can be no functioning society at all – perhaps no functioning civilization either.

One may argue that since the technology has been widely released and enthusiastically adopted by so many, debate about its negative impacts is moot – "the train has simply left the station." We must adapt and learn to work with the media and tools, or risk being left behind and fading into irrelevance, so the argument goes. While I can agree with this in part, largely because these innovations have been forced on us without proper caution, in my opinion we still have some opportunity to mitigate negative impacts to our civilization.

This increasing danger of the use of AI tools gives me pause to consider whether responsible artists today currently possess the capability to fully understand the power they wield to influence others' behavior through the work they produce. I fear that no matter the motivation of many artists and designers, because of the lack of basic training in critical thinking and media literacy coupled with the wide adoption of postmodern relativism in our educational institutions, we will be unable to navigate these challenges responsibly in our current state of affairs. This is not to say that it is impossible to overcome this challenge, but I do not believe it can be achieved without honest reflection on the importance of truth and beauty in our society coupled with formal education and training in discernment alongside the use of these AI tools.

LEFT: Deepfake imagery is often found on social media platforms to arouse passions and generate propaganda. Note the incorrect number of fingers on the boy's hand in this image that was widely circulated on Twitter/X prior to the invasion of Gaza by Israel in the Fall of 2023.

Without some baseline understanding of what is true and real there can be no functioning society at all + perhaps no functioning civilization either!
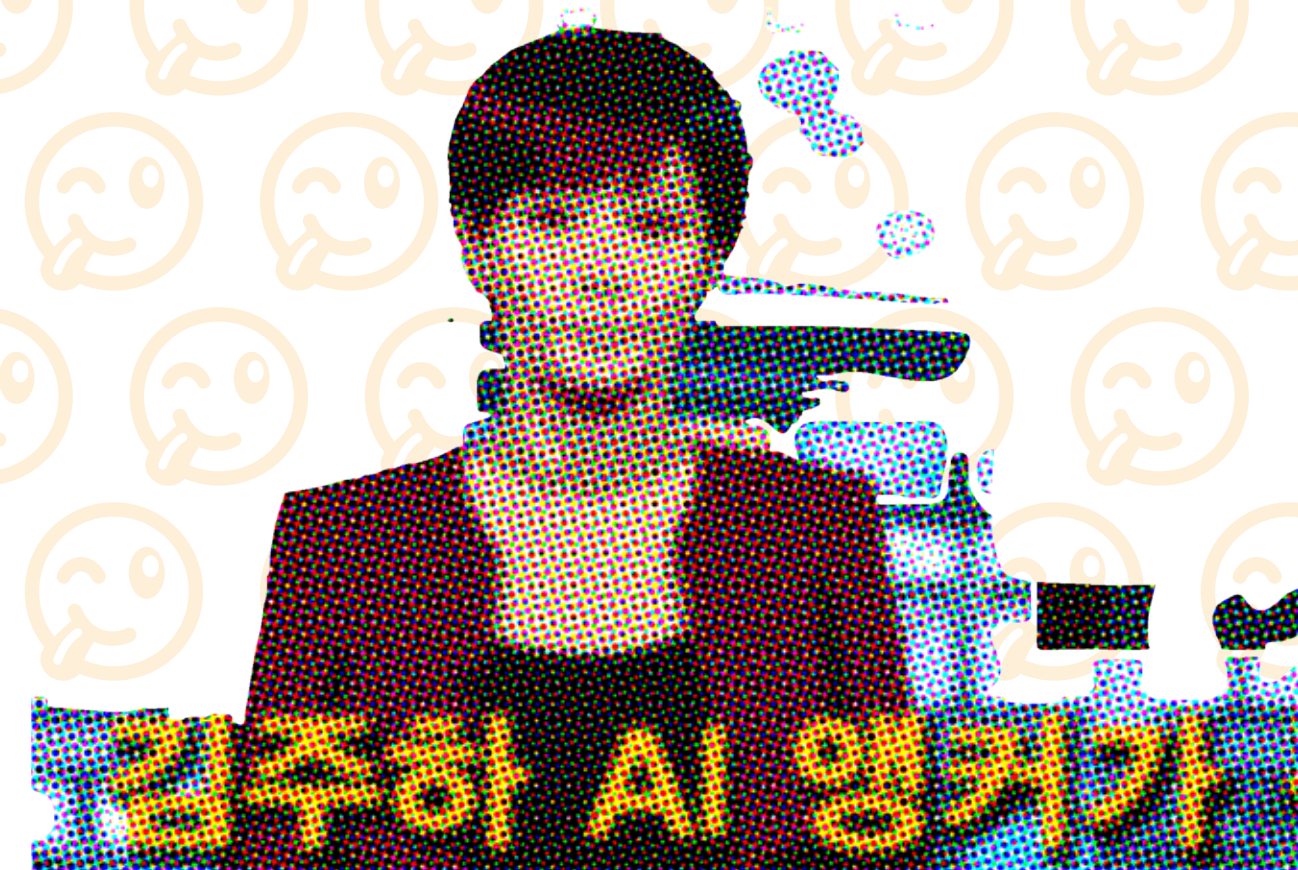
This likely necessitates a revision of our goals in educating young people – to train them to be well-rounded thinkers over training them to be specialized workers. In our information age we certainly do need specialists, but we need specialists who can think critically even more. Specializations should be taught and developed, but I believe the foundation must be built on a return to classical models of education which emphasizes the importance of logic and rhetoric. This will equip people to engage effectively with ideas conveyed by what they see or hear when they encounter them in media, and the ability to use language and symbol effectively to influence others responsibly after appropriate reflection. Once that ability is achieved, I believe these AI tools will be a positive force for good. Without this ability however, AI's potential to create chaos, confusion, and social destruction cannot be understated.

A LITTLE OPTIMISM?

In a promising development, as of this writing, YouTube announced that they would warn users when AI was used to create video content, and allow them to request removal of a video that uses a recognizable face or voice.[56] Self-regulation has some promise, but one must trust the source and the motivation of the platform. Since YouTube depends on advertising, it remains to be seen if this would apply to AI ads, which often feature recognizable-sounding voiceovers such as the rash of Donald Trump-sounding ads for survival supplies and other products. I remain skeptical, considering that YouTube is notorious for their censorship practices and emphasis on maximizing ad revenues.

BELOW: Korean news outlet MBN recently deepfaked their own news anchor, Kim Joo-Ha. They notified viewers ahead of time about the experiment, but it showcased the potential for the technology to be used by journalists. While MBN assured viewers that Kim Joo-Ha still had her job, they still continue to use the AI-Kim for some newsreading reports.[58]
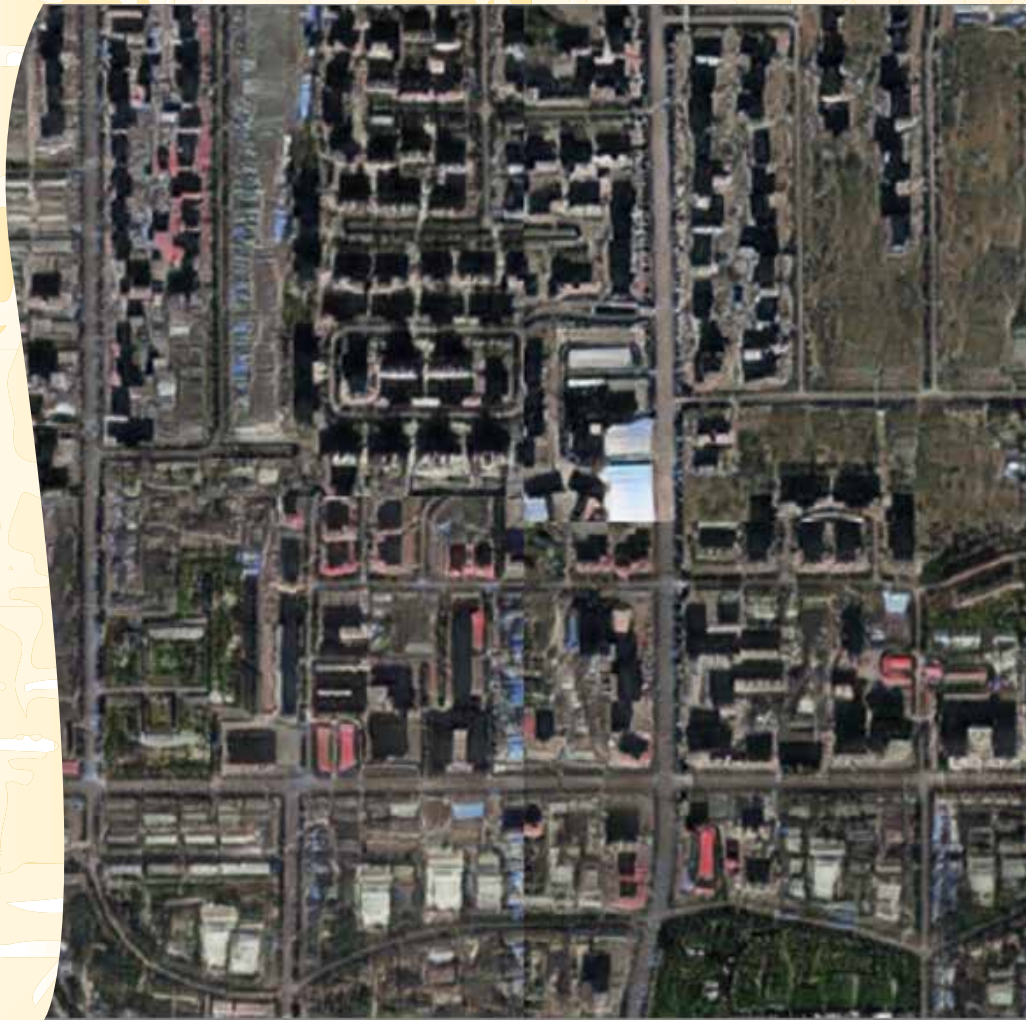
ABOVE: Deepfake imagery is not limited to personalities and news. The above image is of a Tacoma, Washington neighborhood with patterns in Beijng, China overlaid upon it. *Zhao et al., 2021, Cartography and Geographic Information Science.*[59]
**BELOW:** These truck fires do not exist. They were generated by Dall-E 2.
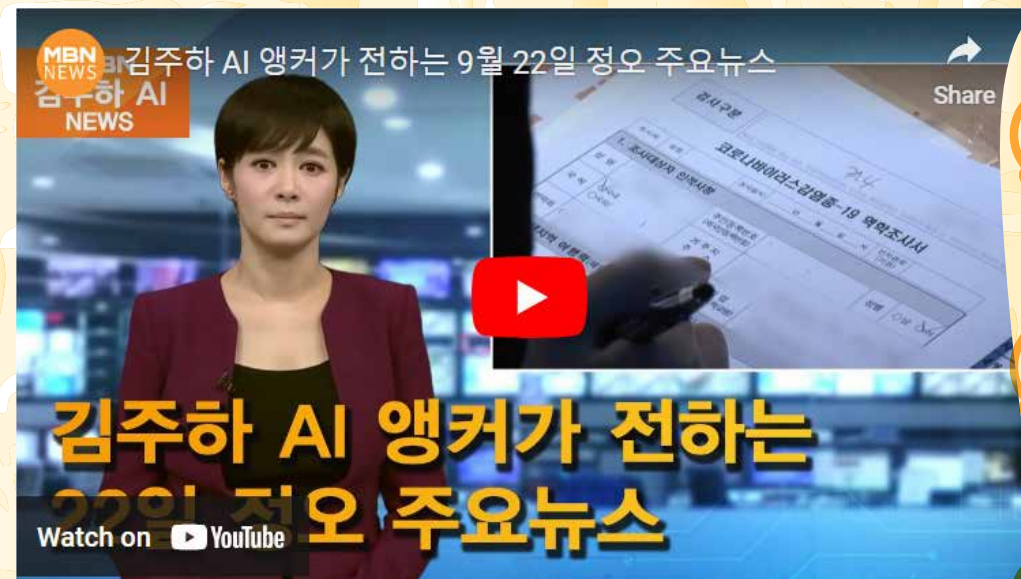
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TOP RIGHT: This dumpster fire does not exist. Or does it?
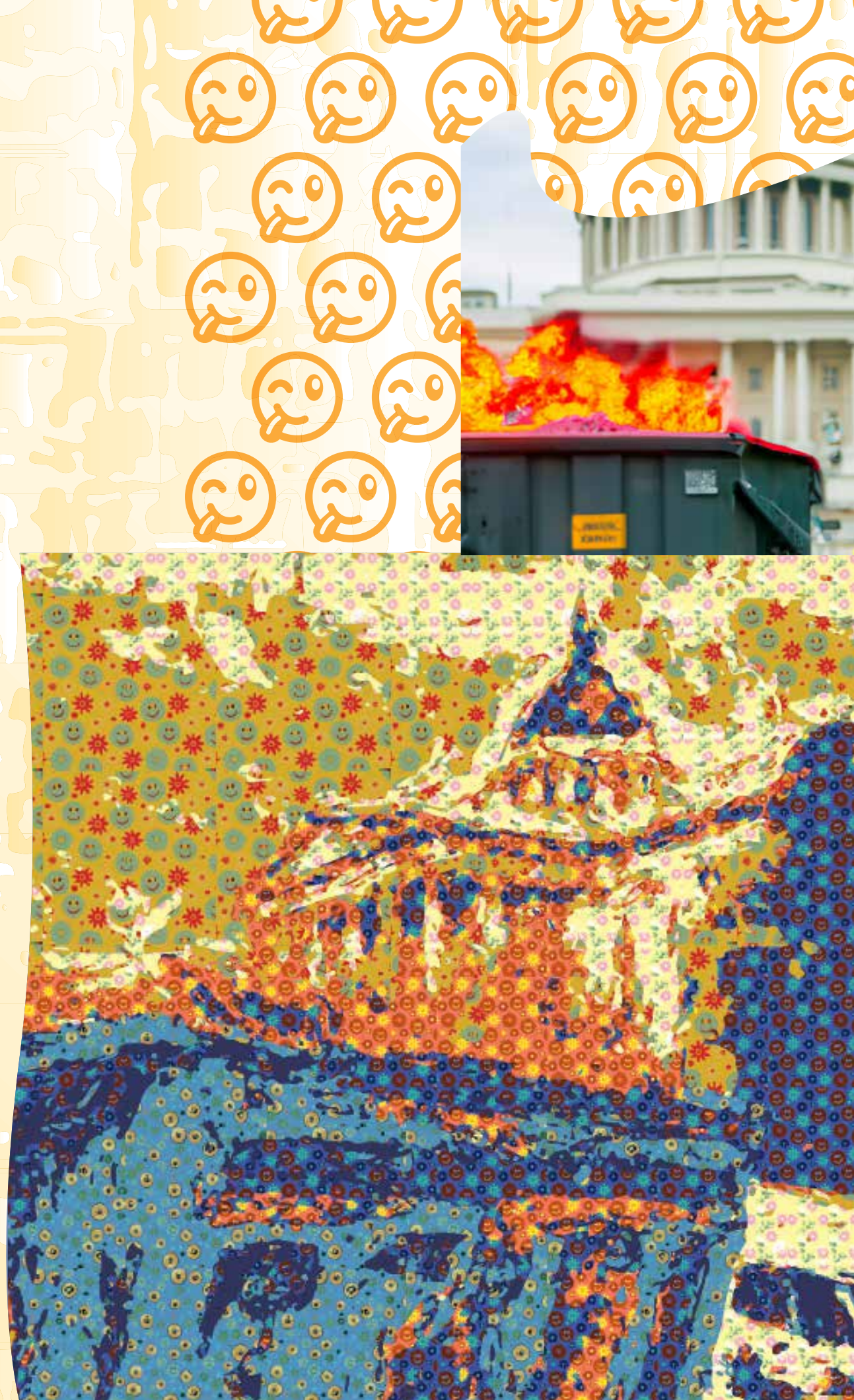
AI Angst: Truth in Mind and Body

In the past few months at the time of this writing, AI technologies like ChatGPT and Dall-E have been upgraded with new, greater, capabilities. With the public release of Chat GPT 4 by OpenAI, along with Bing and Google's public releases, the large tech companies are hurriedly integrating AIs into their products. Even Adobe has gotten into the act with the introduction of generative image tools into its 2024 releases, and I have seen generative AI tools integrated into WordPress page-building tools like Divi.

Pontius Pilate cynically asked Christ during His trial, "what is truth?" (John 18:38) I feel like this is the key question with these emerging technologies. AI engines routinely get their answers wrong even as they are improving, but just like what has often occurs with Wikipedia, which is a crowd-sourced online encyclopedia, the average individual using the AI tools may not know what is incorrect information. People tend to search things they do not know enough about . But people are inherently lazy and may not fact-check what seems on the surface to be accurate, especially if they are in a hurry.[62]

I am not sure one can overcome this reality. Truth seems to be the main casualty of these technologies without proper safeguards. John Adams said that "Facts are stubborn things" -- but how do we even know what a fact actually is these days, especially when people we are told to trust like former president Donald Trump's press secretary Kellyanne Conway refer to "alternative facts?"[63] Log into Google and search for the answer? There is a plethora of inaccurate information online which is highly ranked in the search results. This is especially the case when the information sought is (1) very new, (2) political, (3) spiritual, or (4) otherwise controversial in nature. So even in searching diligently for trustworthy sources, the results may not be trustworthy.

I have to say, I am concerned, but not surprised. When I was in seminary, we often talked about truth. I believe, as do many conservative Christians, that there is such a thing as absolute truth. In the past 50-70 years, that idea has been challenged, originating in academia,[64] and we tend to see how postmodern notions of truth have filtered down to society in today's commonplace ethos of personal relativism (i.e., the "your truth/my truth" dialectic).[65] Determining absolute truth was difficult enough with the advent of the Internet, but today with extremely powerful AIs that are created by corporations (who are motivated by profit), what we consider factual is likely to be highly manipulated.

As I have stated before, I believe artists should be deeply concerned with truth in their work, especially those working in graphic design as visual communicators and artists working in social advocacy. Keeping in mind the difficulties inherent with determining truth using the Internet and AI as source material, how is the artist able to work from a place of truth and authenticity in their work? Surely, we are in dire need of wisdom to help us answer that question.

I think there is a source of wisdom we all have within us that the current state of the art in AI and the Internet does not: A mind and a body. To me, truth in art seems to be rooted in two things -- the mind that understands, and the physical body that performs what the mind directs. These two important aspects of our humanity is only found in us and is not found in today's artificially intelligent tools. Today's technology can only be a tool for the mind and body if we are to maintain our humanity and authenticity as artists, otherwise we will descend into artificiality and our work will betray that deception.

> Pontius Pilate cynically asked Christ during His trial, "what is truth?" I feel like this is the key question with these emerging technologies.

ABOVE: "TikTok Jesus." An AI-powered "Jesus" promises spiritual blessings to users on TikTok, or damnation if viewers do not obey his AI commandments,[60] and is poised to be a huge money-maker for its creator, "@Daily Believer."[61]

THE MIND

One of the projects I am working on is illustrating some of my brother, Ben Wretlind's, novels. He is publishing an omnibus edition of 5 books in a science fiction series Out of Due Season, and he asked if I would illustrate them in back-and-white. He used some AI images to give me an idea of a few scenes in the books, but also stated that he didn't want AI, that it was "the death of art."

As I read his books, my mind imagines what the scenes are. Not as directed by an AI, but in my own imagination springboarding off his words and story. His mind creates the story; my mind interprets the story and directs my art.

However, AI also plays a part. I cannot help but be influenced somewhat by the images he sent me, and I also use AI to produce reference images for my illustration. The AI has no way to understand the context, but it does produce what I ask with variations so that I can make a choice based on my own understanding of what I am trying to do.

Oftentimes, the AI produces some compositions that trigger ideas I would not have thought about. In this way, the AI is a useful brainstorming tool, a kind of collaboration.

The mind, as some psychologists/philosophers describe it, is a shared entity — part of the mystery of consciousness. It is not in the physical neurons my head, or my brother's head, or the silicon bits in the AIs "head." The mind is a shared experience dependent on empathy. But, the AI is not able to understand or empathize, though it often seems so. So, is the AI part of the mind, and therefore a true collaborator in the art — or just a tool used, with no more personality than my X-Acto blades?

If there is true sentience in the AI, then it must be a collaborator with some type of personality -- if not personhood. If not, then we have an passive tool used by the mind, but not part of the mind.

Is truth a construction of the mind, or is it an objective reality that the individual mind interprets? The world we see and sense is a construction of the brain, 'hallucinating reality." The mind, however, is not the brain and is possibly what defines "truth" for the individual. For an artist, our sense of truth drives our art — what does it therefore mean to introduce AI as an additional collaborator — a part of the shared mind?

I don't, at this point, have an answer to these questions. My instinct is to see the AI as a tool (at this point in the technology), since it cannot understand the implications of what it suggests to the artists in the collaboration. But, that could change if an AI were to be seen as a sentient being.

ABOVE: A couple of reference images my brother, Ben X. Wretlind, sent me generated by an AI, "the death of art."

BELOW: A reference image of a "fish looking at a diver's camera" produced by Dall-E 2 AI, used in the illustration I made for the book at **RIGHT.**

Here's looking at you, kid!
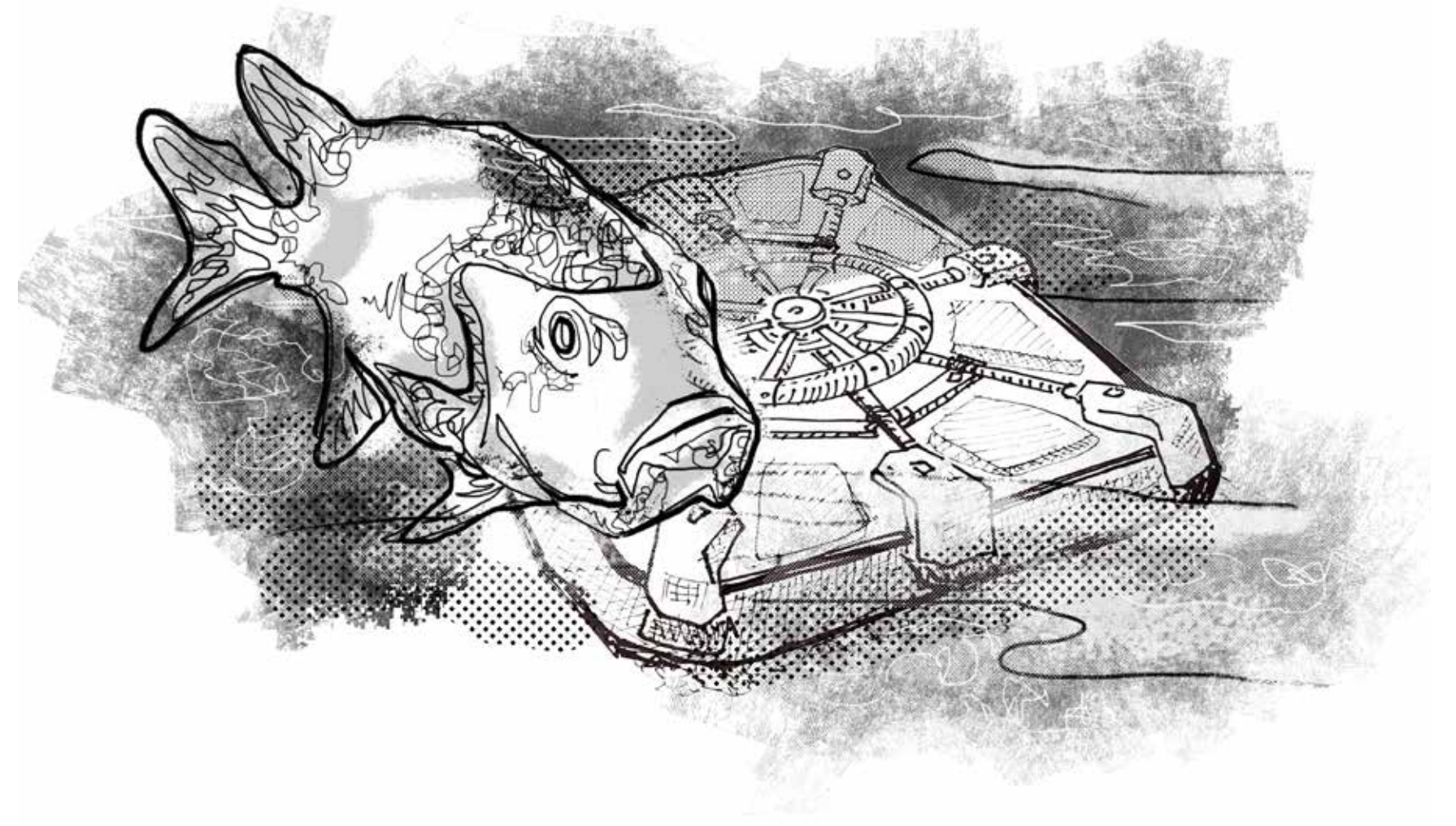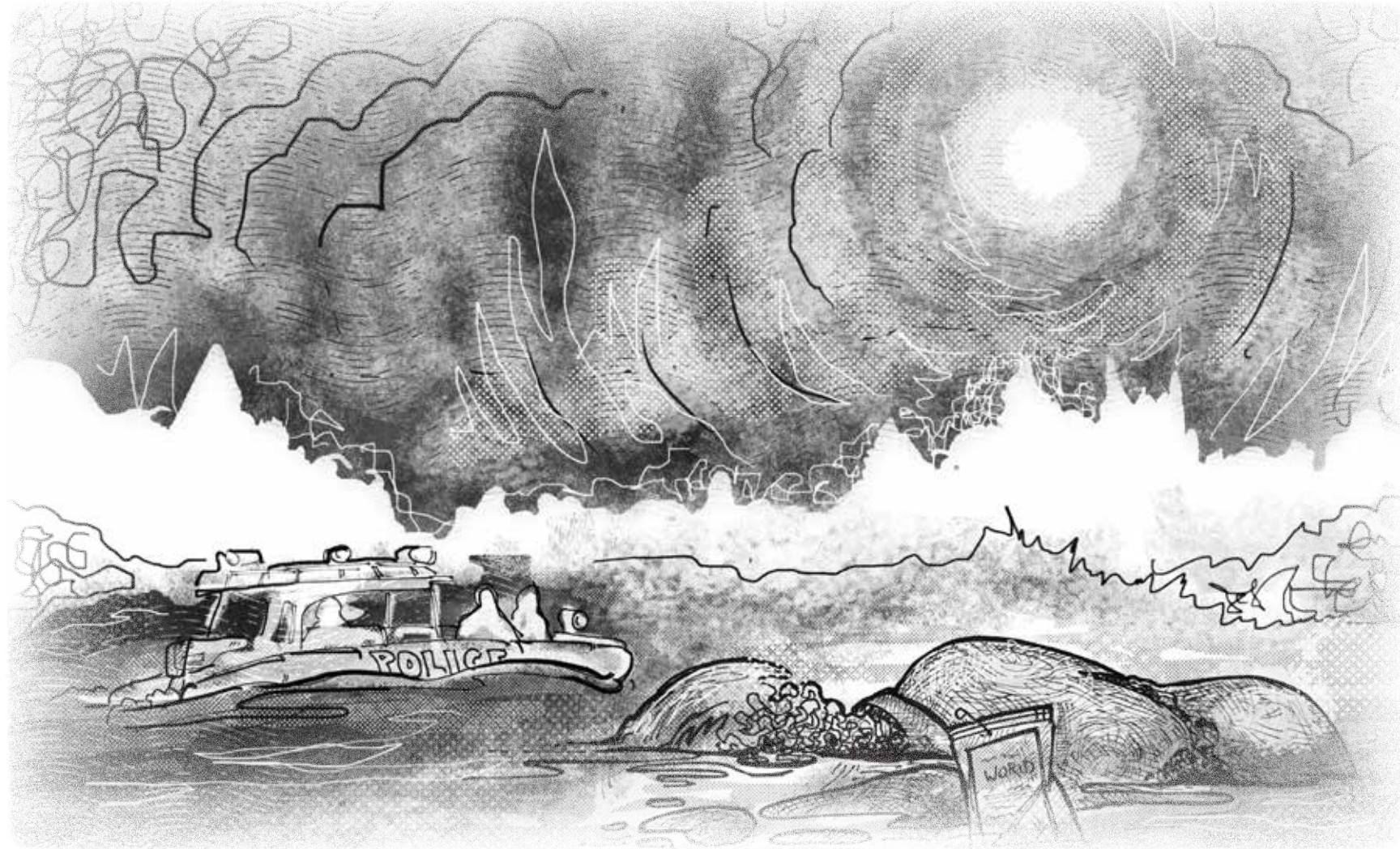
A couple more drawings I made for my brother's book, *Out of Due Season*.
These are hand-drawn in pen, scanned into PhotoShop where textures are
applied and drawings are enhanced. AI was used for reference only.

IN HU MAN

ABOVE: Reference images using Midjourney (top) and Dalle-E 2 (below) for the digital illustration at right. Even the gestures of the human hand using a mouse or trackpad inject a human element in the work, along with the creative interaction of the mind.

THE BODY

The artist creates using their body. The painter paints with the arm and wrist. The dancer uses the body as the expressive canvas for the ideas in the choreography. The writer types. The graphic designer uses their eyes and mouse and/or drawing implements.

In this, the AI cannot duplicate the physicality of the art. There is a quality that is lost in the AI's output, much like the "uncanny valley" one experiences when one watches an older movie using CGI technology.

And this seems to be a major differentiator -- the body. The individual human body is limited and unique and produces a quality of its own due to individual limitations and abilities. This is a quality that a disembodied AI cannot reproduce.

In my observations of AI imagery, this human quality is missing — the images are too perfect. The human artist will have imperfections and a style linked to the artist's imagination and body. The AI lacks an imagination (it works on the principle of prediction of the next word or image), as well as a body (at this point in our technology — this may change, as robotics become more sophisticated).

The individual body, with its inherent abilities and limitations, is unique. When we observe art that is produced by a human, there is a quality of the art that extends from the individual's physicality. The AI lacks this physicality, therefore the uniqueness which we often interpret as authenticity. The AI art is therefore "untrue" to the viewer, generating the reaction of the uncanny valley. A little too realistic — too perfect.

It's inhuman.

INHUMAN
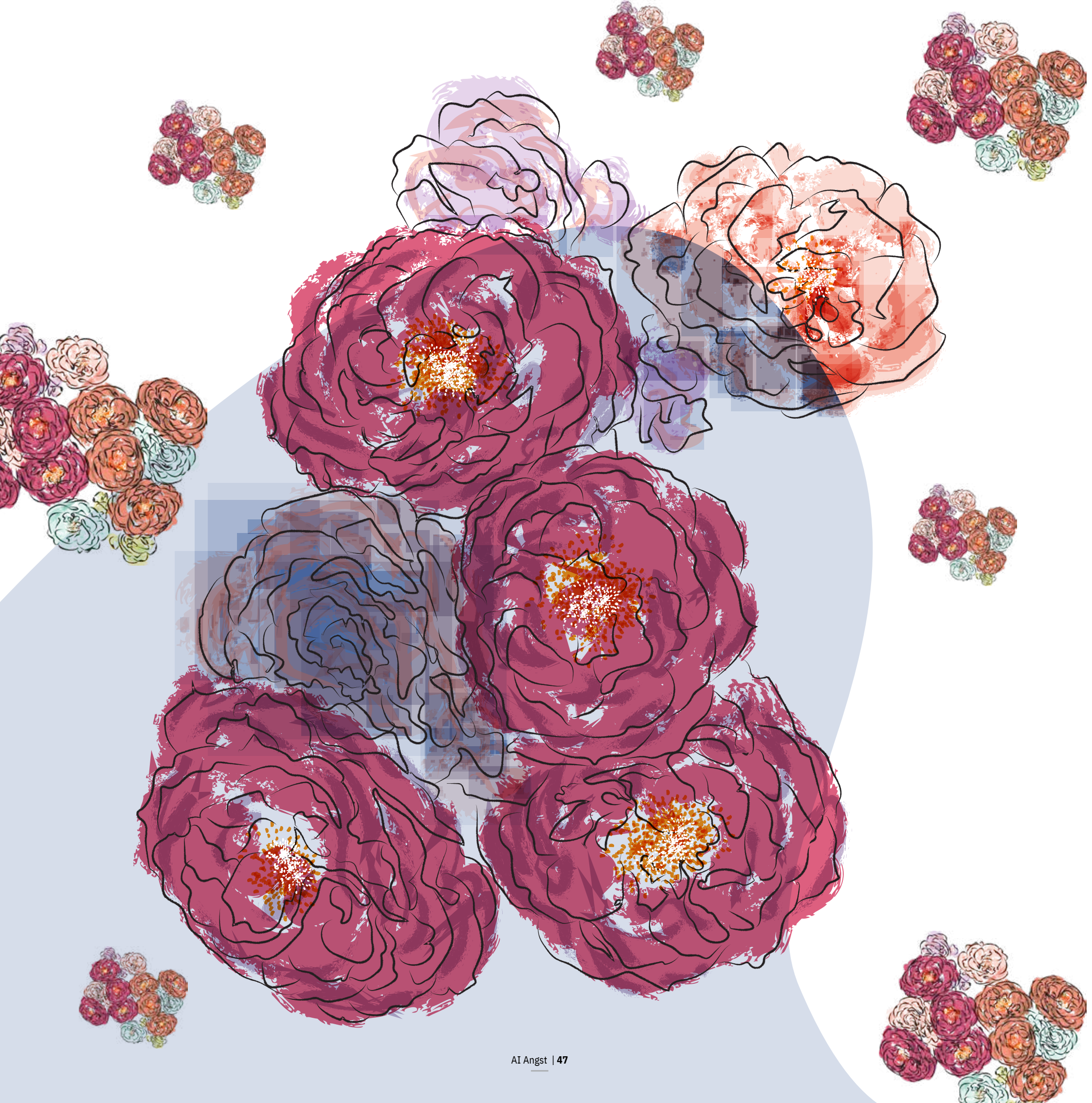
TRUTH AND THE ARTIST

The artist, using mind and body together, creates work that is unique to that artist. When the artist's work coheres with the mind/body connection, the work is perceived as authentic or truthful. When they do not connect/cohere, there is an inauthenticity an untruth in the art which generates as much revulsion in the viewer as it might also fascinate, but as something "alien."

Art is also interpreted by the viewer, oftentimes apart from the creator's intent. The viewer is that which views the art and judges the work as authentic or not. Because the mind is a shared reality, when art connects with the viewer, the mind is expanded into the experience of the art and is received as "real art" if successful. When AI imagery is passed as art, there is a quality is somehow interpreted as inhuman. But, when a human is using the AI as a tool, it can become an extension of the artist's own imagination. The result may then be received as human.

When art is created for a purpose apart from including the viewer in the equation, one may consider the art to be a contrivance. Graphic and product design is sometimes received this way as "low art" or "commercial" — in which we mean that it is a contrivance created for a purpose such as advertising a product, disconnected from the experience of the viewer/customer. However, design that includes the viewer in the equation, through empathy, is not considered a contrivance and is therefore received more positively, even if the design is created for some "low" purpose such as advertising.

RIGHT: Actual, for-real, cellphone photo of roses I captured while walking my dog. The photo is an historical artifact of a real, human event and is also the source material for digital art. The image contains more information and more of the artist's own experience than any AI-generated reference image could.

The artist, using mind and body together, creates work that is unique to that artist. When the artist's work coheres with the mind/body connection, the work is perceived as authentic or truthful.

EMPATHY AND TRUTH

Empathy is required for human survival. From the womb, humans are extremely vulnerable and require the assistance of other beings in order to survive the harsh world we inhabit. This makes us social creatures with a shared mind. In addition, one could argue that in groups, the human community may be considered as a single body, which is reflected in the way we sometime refer to communities or organizations — as a body. In community, the needs for survival and thriving are dependent on each other and must interact with other communities. When this interaction is positive, it too relies on empathy. When not positive, the interaction devolves, sometimes through demonization of the "other" creating conflict and even open warfare. It is a breakdown in empathy.

For truth to be received as such, a certain type of empathy within the community mind will judge it to be so. This is why many communities, even when confronted with factual data that exposes a belief as untrue, will "double down" and reject the facts — even call them "alternative facts," which is an oxymoron. To receive this new fact which challenges a strongly-held belief, (especially when presented by the alien-other outside of the community), the community must empathize and come to an agreement. This is difficult.

AND THIS IS WHERE AI IS SO DANGEROUS

As stated before, AIs lack understanding of what they are tasked to do. They are incapable of empathy, though they may counterfeit it convincingly. An image generator creating an image of Trump holding a rife does not understand the context nor the intent. However, in our image-focused society the power of the image may be able to sway communities toward certain beliefs, especially if that community is already accepting of compatible beliefs. But even those communities that have beliefs which are incompatible with what the image seems to be saying will receive that image as truth too if it is convincing enough, and then come up with an alternative interpretation which already confirms some other tightly-help belief.

This is because we are each susceptible to confirmation-bias. This bias is a core element in community identity, which is essential for community survival. When a community accepts some information, received as truth, that seems to challenge the core identity, the group must interpret it in a way that coheres with that identity. Therefore, the image in our example will more deeply cement sets of beliefs which competing groups hold. This adds to polarization within those communities and increases the likelihood of each community demonizing the other — resulting in conflict.

AIs lack understanding of what they are tasked to do. They are incapable of empathy, though they may counterfeit it convincingly.

RIGHT: Images generated by the GAIM.ai tool, using the "realistic cartoon" and "sci-fi" image generators leveraging the Stable Diffusion engine that Midjourney uses. Prompt: "A person empathizing with a survivor of a train wreck in flames." The arrangement and sequence implies the robot caused the train wreck in this series of images.

We've all been there, AI, we've all been there....
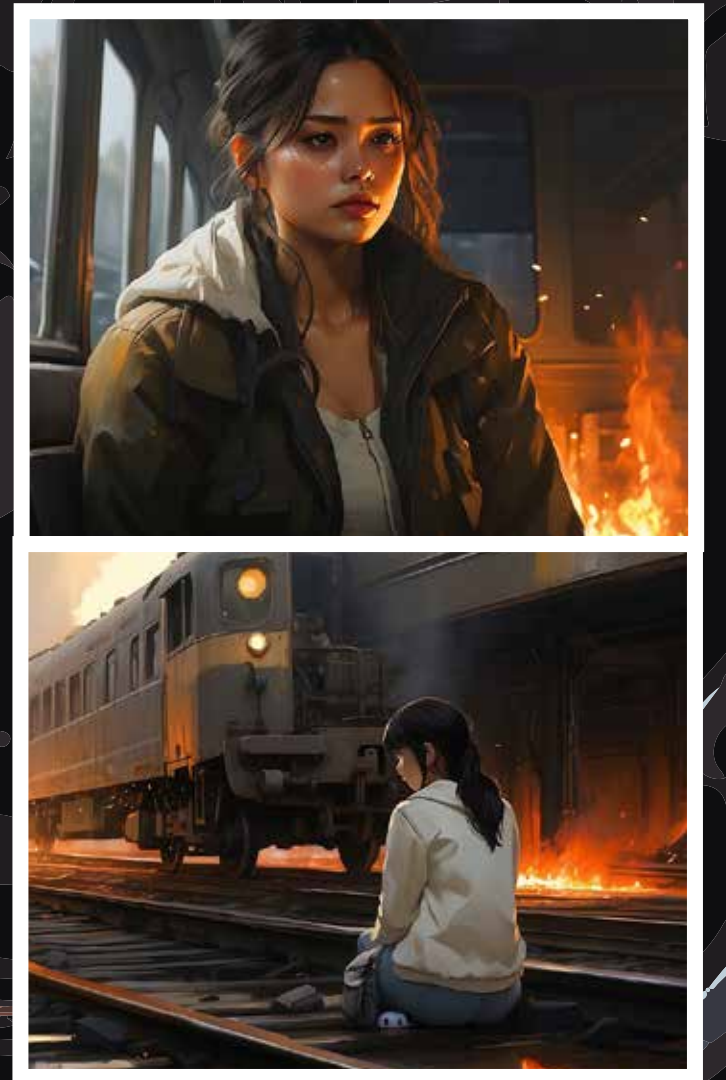
EMPATHY AND THE ARTIST

The artist observes and interprets the world by producing works (i.e., photos, paintings, writing, poetry, dance or any other creative endeavor) which will be received by the community as art. The better an artist empathizes with the ethos of the community, the more likely the work will be perceived as valuable. The artist may then be compensated for the work well, which enables the artist to continue creating work that appeals to that community.

A good example of this is the late Thomas Kinkaid's work. Within the conservative Christian community, the work was so well received that Kinkaid was the highest-grossing living artist of his time.[66] He was able to strike a nerve that empathized with that community's desire for an Edenic fantasy world coherent with their beliefs. In other communities, the art was received as kitsch worthy of lampooning, which results in a body of humorous re-interpretations of his work which can be found on the Deviant Art website. I have re-imagined this work using ChatGPT-4's capabilities at right.

I believe there is a great responsibility within our image-saturated society for the artist to be deeply empathetic for the betterment of society as a whole. The power of art can drive deep beliefs and create cohesion within communities, which may deepen positive bonds or create deeper negative division.

Therefore, I believe that the use of AI must never be used apart from deep reflection on the ethical impact it produces. The convincing nature of the image is just too easily received as truth by the larger society which lacks the tools required to be able to judge the art as authentic or inauthentic.

The artist therefore needs to be rooted in ethics alongside their training in technique because of the power of image and ease of creating more powerful images through an AI tool. I believe that training in ethics and philosophy should be part of the core education of the artist (alongside the education of society in general), focused on the ethics of what they may create and the possible consequences for society.

Now, I have no illusions about this. The likelihood is that AI imagery will continue to be used unethically by competing communities to persuade their adherents and demonize the outsider. That means that the artist who wishes to be ethical, needs to be able to use these tools to advance ideas that do not demonize. In order to do that, they need to understand what they are doing in order to make conscious choices.

Will that happen? I have to think yes, and no. The artist must, like everyone else, survive through the means of their

ABOVE: This is NOT a Thomas Kinkaid painting, but a cottage generated by ChatGPT-4's, Dell-E engine in the "style of Thomas Kinkaid." It looks pretty accurate and could pass as authentic by someone unfamiliar with his work. It captures the heartwarming idealism and nostalgia of Kinkaid's paintings that appeal to the Christian community.

RIGHT: "Thomas Kinkaid Gone Very Wrong" via ChatGPT-4 — not exactly heartwarming, but a cynical commentary.

ABOVE AND RIGHT: The same prompt of an idyllic village being assaulted by alien robots and soldiers, in photographic styles. The image above is reimagined as a tintype reminiscent of the War of the Worlds, and the image at right is imaged in a photojournalistic realistic style, minus the alien robots. Both of these are generated by ChatGPT-4.

It is interesting that the alien robots are imaged as the alien xenomorphs from the *Alien* movie series, which was not specified by the prompt, but does reveal a certain bias caused by users imaging aliens using the tool and training Dall-E 2 on what an alien should look like.

The image at right could pass for a real journalistic image used as a deepfake.

> I believe that the use of AI must never be used apart from deep reflection on the ethical impact it produces. The convincing nature of the image is just too easily received as truth by the larger society which lacks the tools required to be able to judge the art as authentic or inauthentic.

work. They need the support of their communities to do that. Inasmuch as individual humans differ in their beliefs, communities also differ. Artists are people within community, not islands unto themselves with ideas and beliefs that are uninfluenced by their community (even if they often consider themselves to be so).

Prophetic voices, those that challenge their own communities' beliefs, rarely do well materially. These artists may become the stereotypical "starving artist" which may also be their accepted role within community. That would be their choice, though I would assert that many of these would hope that acceptance of their work would result in less starvation.

Other artists will make other choices. Starvation is not enjoyable. The survival instinct is strong, driving many artists to seek acceptance in order to survive and even thrive. The temptation of use of AI tools to create convincing fictions that may drive unhealthy beliefs is high. One may use the tools and be rewarded with accolades if that work is perceived as truth. I think this is likely as well, which is already evidenced by many people using AI tools as art in and of itself to make money. You can do a quick search on the Internet or YouTube/TikTok to see evidence of this. Contrivance sells — AI makes it easy.

I wish I could be more optimistic. I am optimistic in my own exploration of the use of AI to make my design and illustration work more efficient if I am cognizant of its use ethically. I have stated before that I am a conservative Christian with seminary training in addition to my art training. I consider myself to be a Virtue Ethicist, in which I mean that positive ethical choices lead the reinforces the classic cardinal virtues (prudence, justice, fortitude, and temperance), thereby creating a more virtuous society. I am aware that there are other philosophical ethical ideas and positions, but this is the position that most resonates with my own belief.

As such, I am also aware that my work may be accepted by some communities and rejected by others. To me, that is an inescapable outcome for any artist — one cannot be all things to all people, though some may try (leading to contrivance).

Therefore, in my opinion, use of AI as a tool would most ethically align with the stated virtues above. Prudence would indicate that my work should be governed by reason, not created out of a desire for chaos but of order. Justice would lead my artistic work away from selfishness toward the betterment of humankind, not to tear it down. Fortitude is the willingness to confront pain and discomfort, which one could argue that I am experiencing now by my choice to downsize my living situation to a small van with extremely limited creature comforts. Temperance would lead my work to exercise restraint — not just producing work outside of consideration of the ethical consequences just because it may be more financially successful.

With an AI tool, I believe that my work can be made more efficient and it can expand my own creativity if used ethically. I would hope that it would be able to expand my reach to other communities with what I also believe to be true about the world.

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Prophetic voices, those that challenge their own communities' beliefs, rarely do well materially.

THE ARCANE DESIGNER

While developing paper negatives in a makeshift darkroom using experimental chemistry unknown to most photographers (a mixture using cloves, laundry soda and vitamin C powder known as "caffenol," except for the cloves in place of instant coffee crystals), or banging out type on an old 1954 Royal manual typewriter, the idea of the "arcane" comes to mind. At various times in my work, I may be carving a woodblock to make a print using re-purposed kitchen utensils and a pasta-maker for a press. I might be putting together a new camera design, hoping to find more interesting ways to create surprising imagery. Or I might be painting something more conventional. In my current work as an artist and designer, I am seeking to create some new thing from some old alchemy like a wizard trying to call forth a new spirit from the ancient deeps.

I also would be doing more conventional graphic-design tasks, like code a website with JavaScript in WordPress or put a layout together with Adobe Creative Cloud tools. But even some of these things feel arcane in their own way. For example, I used the very first version of Adobe Photoshop to do much the same things I am using it for today — to manipulate a digital photo. The methods I use are 'old' too, and lack the sparkle of the newer features, but they still work well for me. However, when I teach the techniques to my students, I also get a sense that I am passing on some old, ancient knowledge and trickery known only to a few. Perhaps, I am.

When I think of the word arcane, I think mostly of the old and obsolete being revived for a new purpose. The arcane, by definition, has been neglected and forgotten by most, and I revel in uncovering it, combining the old ways into the new thing I am working on. For me, the magic occurs when there is some image revealed that bears the beauty of ineffable analog uncertainty; to create a beautiful mess, collaborating with untamed Nature. Today's digital technology may be able to replicate analog means, but it does so in a very constrained predictable fashion. It can never truly match up to the true analog or what Nature can do — therefore, it can never really create such a beautiful mess apart from the arcane.

I find that work produced by digital means are too controlled, too precise. Such precision I find oppressive — the designs feel cold or clinical instead of vibrant and alive. They fill me with the odd dread of the uncanny valley. Even with, or perhaps especially because of, the rise of sophisticated artificial intelligence integrated into our tools, much I observe in design today feels even further separated from humanity and Nature. The artist's hand no longer feels present in the work. Instead, the machines are designing for other machines, using humans as a tool in servitude for the machine as they create the right prompt that will generate the result sought.

The arcane is that which is at once old and ancient made anew through the secret knowledge of its adherents. Like wizards intoning ancient texts those who willingly engage in the arcane arts revive the power and magic of the obsolete.

This is why arcane methods of image-making, using means considered obsolete and/or mysterious attracts me at a deep level. There is the quality of uncontrolled accident coupled with the impossibility of "perfect" technological execution which allows the work to reveal the artist's hand and the chaotic beauty of natural processes. It is a sublime quality.

In my work over the past couple of years I have researched image-making methods focused on the 19th Century, from printmaking to photography. I chose this period because of the disruptive changes wrought by the first and second Industrial revolutions in England and the United States, and the many historical parallels with our own time. Along with rapid, technology-driven societal change during the late 19th Century came a familiar angst we feel today — that the old ways would be forgotten and the artist would be replaced by the new technology. Painters fretted that photography would destroy painting. In some ways they were right, but it was by including the new technology into their work that modernist painting came to be. Without photography and film, where would Impressionism, Cubism or Surrealism have come from?

Romanticism and the Arts and Crafts movements are also 19th Century responses to such angst. The irony is that, while we are currently witnessing disruptive change brought by the third and fourth Industrial revolutions, my response to it is to employ the now-arcane technologies that were new and disruptive back in the 1800s — a kind of Romantic response of my own.

And, all the while I am writing these words, not on my ancient typewriter, but on my modern laptop, I am using an app that employs AI tools to aid in research and grammar. I am assembling my layouts using digital tools to aid me where precision is desired. Just as William Morris and Company bemoaned the mass-manufacturing methods that created the consumer-driven commoditization of design in his day, I too am doing the same. But also, just as he, I am forced to use the very tools and means of the newer technology in order to accomplish my own Romantic ideal, because of nothing more than sheer practicality. Morris could accomplish his own ideal no more than I can mine.

I am seeking to subvert the new technologies by incorporating the arcane into it. One cannot ignore the new — it is ever-present and ever-powerful. I must employ it while at the same time seeking to subvert it. It is in this work I hope to recover what I feel is being lost, and also create something truly new, and truly human, from the process.


TOP RIGHT: A falling-plate magazine pinhole camera that holds 8 film-holders/plates. I built it out of foamboard.

BOTTOM RIGHT: A view-camera I built using a recycled binocular lens made from basswood and foamboard.
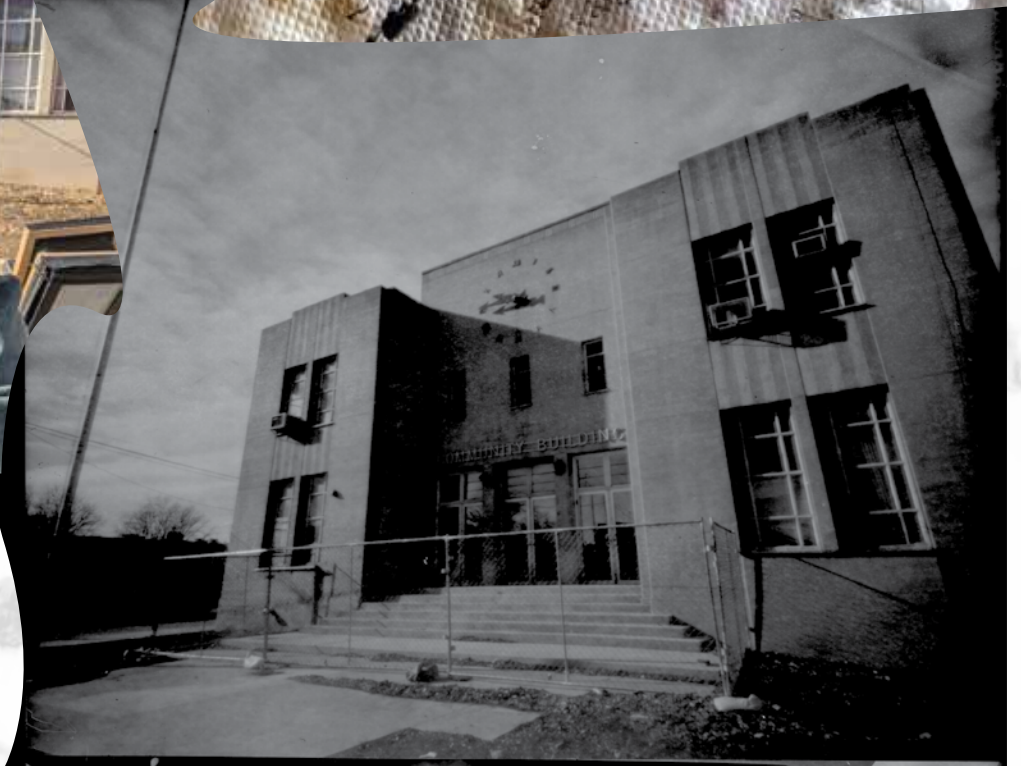
TOP: The first pinhole images I made with my homebrew cameras and the coffee-can camera I used to take the image of a railroad crossing near my apartment.

RIGHT: Me taking the view camera out for a spin in front of the Pulliam Building in downtown Loveland, CO. The photo to the right of me was taken with one of my pinhole cameras since the view camera needed more work at the time.
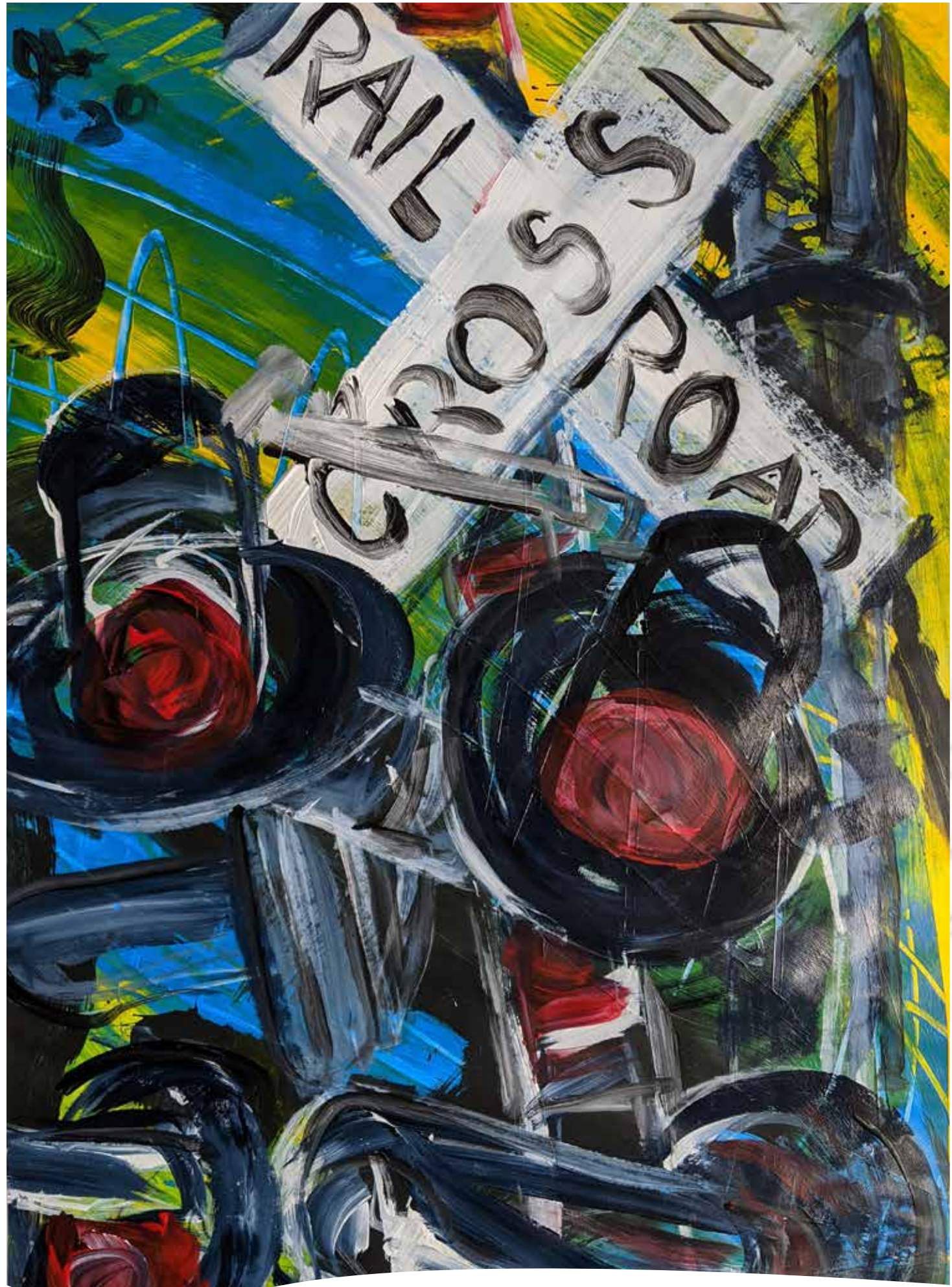
TECH AND TIME

In The *Four-Dimensional Human: Ways of Being in the Digital World* by Laurence Scott, the author presents the idea that we are no longer bound to three dimensions of space and physicality, but we have become four-dimensional beings through our technology.[67] With the magical powers our tech grants us, we can be anywhere virtually; we exist in a compressed time-scale of immediacy through our social media; and we are transcending the limitations of time itself.

We also transcend space. We may bodily inhabit a particular location, but through our smart devices we co-exist in a virtual, disembodied timelessness. Our minds and consciousness are expanded through social media in such a way that we often aren't really present in our own time at all. We find ourselves preoccupied with whether or not someone is 'liking' the images of our dinner meal which we share with the world, rather than acknowledging the real presence of a friend we are having dinner with in the present moment. We can be alone in a crowd or we can be bodily alone — but our digital selves can never be. We have evolved for ourselves a hive-mind unable to shut out the presence of our personal cloud of witnesses.

There is oppression in this — we have forgotten the benefits of "taking our time" to enjoy our journey through life and we are far unhappier for it. We have come to expect that everything we want or need can be had immediately, or at least in a day or two delivered to our door from around the world. We have lost the virtue of patience. Time has become an authoritarian dictator of our lives, mediated through the digital technology we cannot seem to escape from and is as much a part of our own physical selves as a limb or eye.

We have become unaccustomed to being alone, even when we are more alone than ever in our offline existences. We cannot stand the volume of silence, so we must fill it with a cacophony of opinions, thumbs-ups or text-based commentary.

There is true superhuman power in the technology we possess. We cannot conceive of a life without such powers our technologies grant us and that possess us. Is it any wonder we find ourselves so often feeling enslaved and exhausted?

There is an answer to this technological oppression in the exploration of the arcane. By it's very nature, that which is arcane takes time. It requires physicality. It is Natural, made of actual *stuff*, and it is mostly untamed. As hard as we may try, we can barely control the outcome of our arcane artistic expressions.

67   Laurence Scott, The Four-Dimensional Human: Ways of Being in the Digital World (W. W. Norton & Company, 2016).

The arcane subverts our obsession with artifice; the old and ancient knowledge of the ancient arts and of the obsolete.

The arcane subverts our obsession with control. Unlike our digital tools which promise precision, the arcane can never be fully under our power. We may become masterful in our techniques over time and with great practice, but we can never be the true masters. We must instead become apprentices and then eventual collaborators with the arcane, surrendering our desire for control to Nature. We are more like supplicants waiting for the serendipitous blessing of the arcane arts as we bow our heads to our worktables and pray for beauty to emerge from our effort.

This slow, artistic collaboration with Nature brings many benefits to us. It is truly beautiful as much as it is unexpected. It is mysterious and timeless, and it can help us recapture something we have lost to our shiny digital tech: our *humanity*. By pursuing the arcane, we find ourselves as artists creating real things in real life, not as simple mouse-clickers on a thin metal box creating unreal things for an unsatisfying virtual world.

LEFT & BELOW: Acrylic monoprints on paper, printed with a silicone gel plate.

ABOVE: Pinhole photograph shot on 4x5in film negative of the Loveland Feed & Grain.
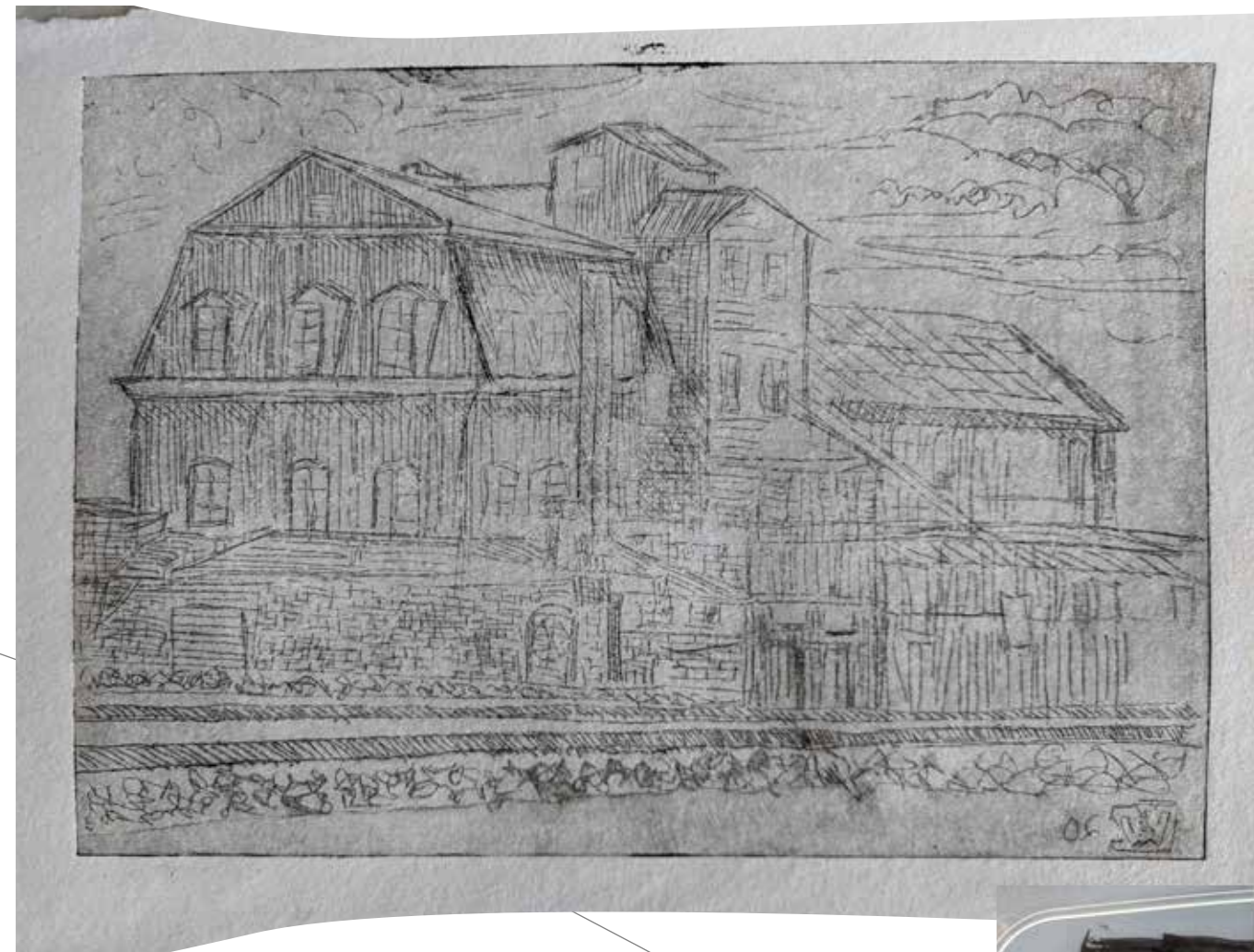
ABOVE: Pinhole photograph of the King Storage sign in downtown Loveland, CO.

**ABOVE:** Gel plate acrylic monoprint on paper from the photo at right.

ABOVE: Two homemade gelatin plate prints of a Miller moth shot on my cellphone camera superimposed in Adobe Photoshop.

ABOVE: Homemade copperplate etching of the Loveland Feed & Grain building, unfortunately reversed.

LEFT: The initial inked drawing to make the plate.

LOWER LEFT: The etched plate, using distilled white vinegar, hydrogen peroxide and salt as the acid etching agent for the copper plate.

ABOVE: Woodcut image of a rabbit.

LEFT: Prints drying in my apartment studio.
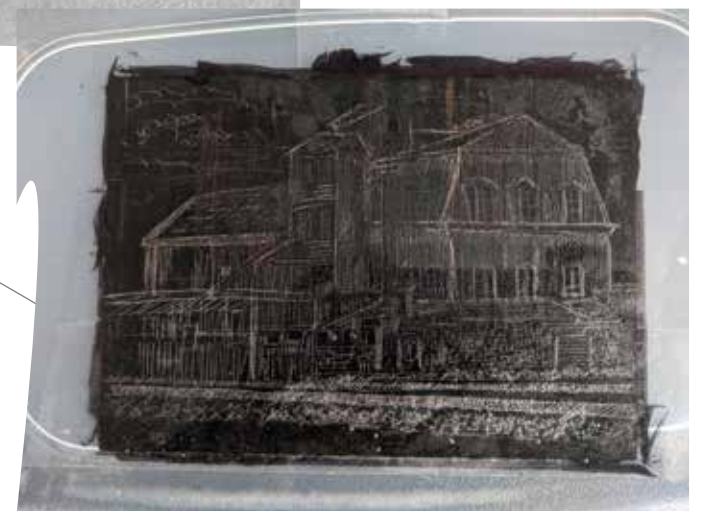
ABOVE: Homemade printing press using a small 2 ton tire jack for small prints, build from hardwoods in my apartment studio.

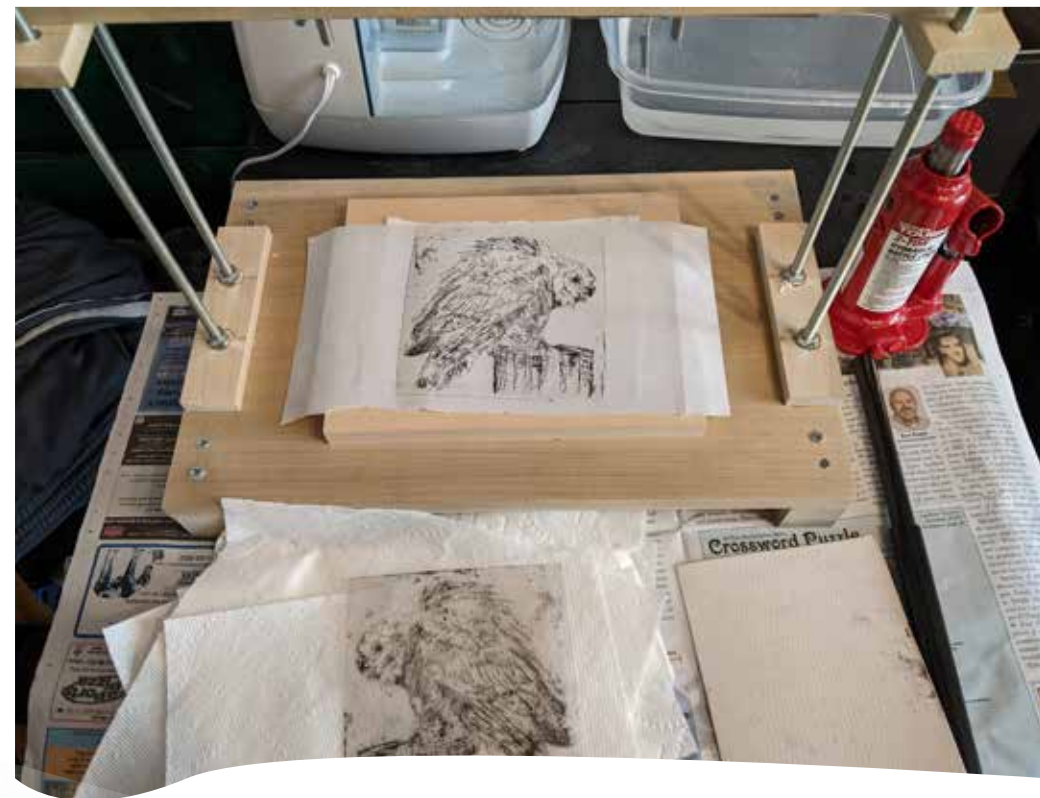**OPPOSITE:** My favorite print from this experiment.

THIS PAGE: Drypoint on recycled plastic prints of an owl based on this photo of an owl at right by photographer Rae Ann Michelle Garrett which I saw on Facebook.

OPPOSITE: My favorite print from this experiment.

SENTINELS

Downtown clocks tick out the minutes,
their towers impatiently marking the hours,
the tentative moments of life on pause.

Church towers silently stand waiting,
as if reciting liturgies of seasons blurred
by tears of separation and griefs unresolved.

These towering sentinels keep their silent watch,
in hope to chime a brighter day with bombastic bells
but cannot, for no one hears them ring.

Time, measured in minutes, hours and seasons
and in the death of all we trusted to be eternal,
we mark time acting as if nothing truly changes.

Until the clocks tick out the next moment of our lives,
we listen for the faintest tinkling of hope,
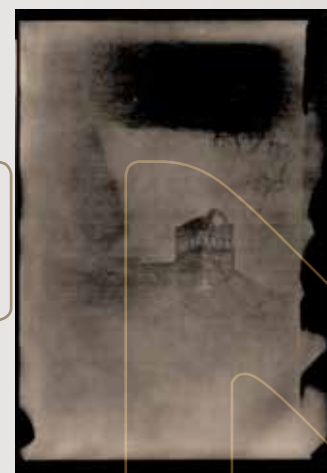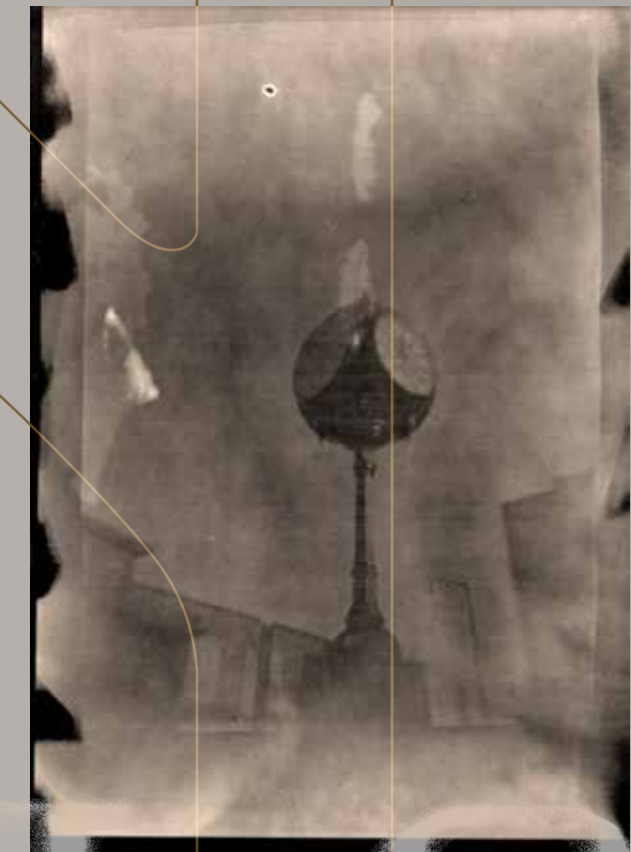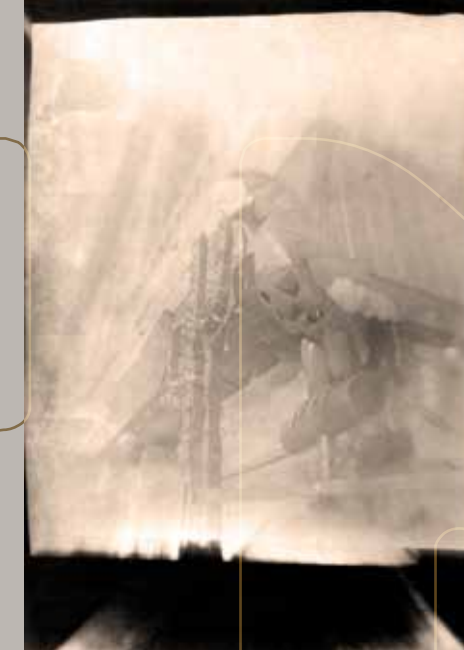and bear witness of this time as sentinels ourselves.

Downtown clocks tick out the minutes,
their towers impatiently marking the hours,
the tentative moments of life on *pause.*

Church towers silently stand *waiting*,
as if reciting liturgies of seasons *blurred*
by tears of separation and griefs *unresolved*.

These towering sentinels keep their silent watch,
in hope to chime a brighter day with **bombastic bells**
but cannot, bells
for no one hears them ring.

Time, measured in minutes, **hours** and **seasons** and in the death of all we trusted to be *eternal*, we mark time acting as if nothing truly changes.

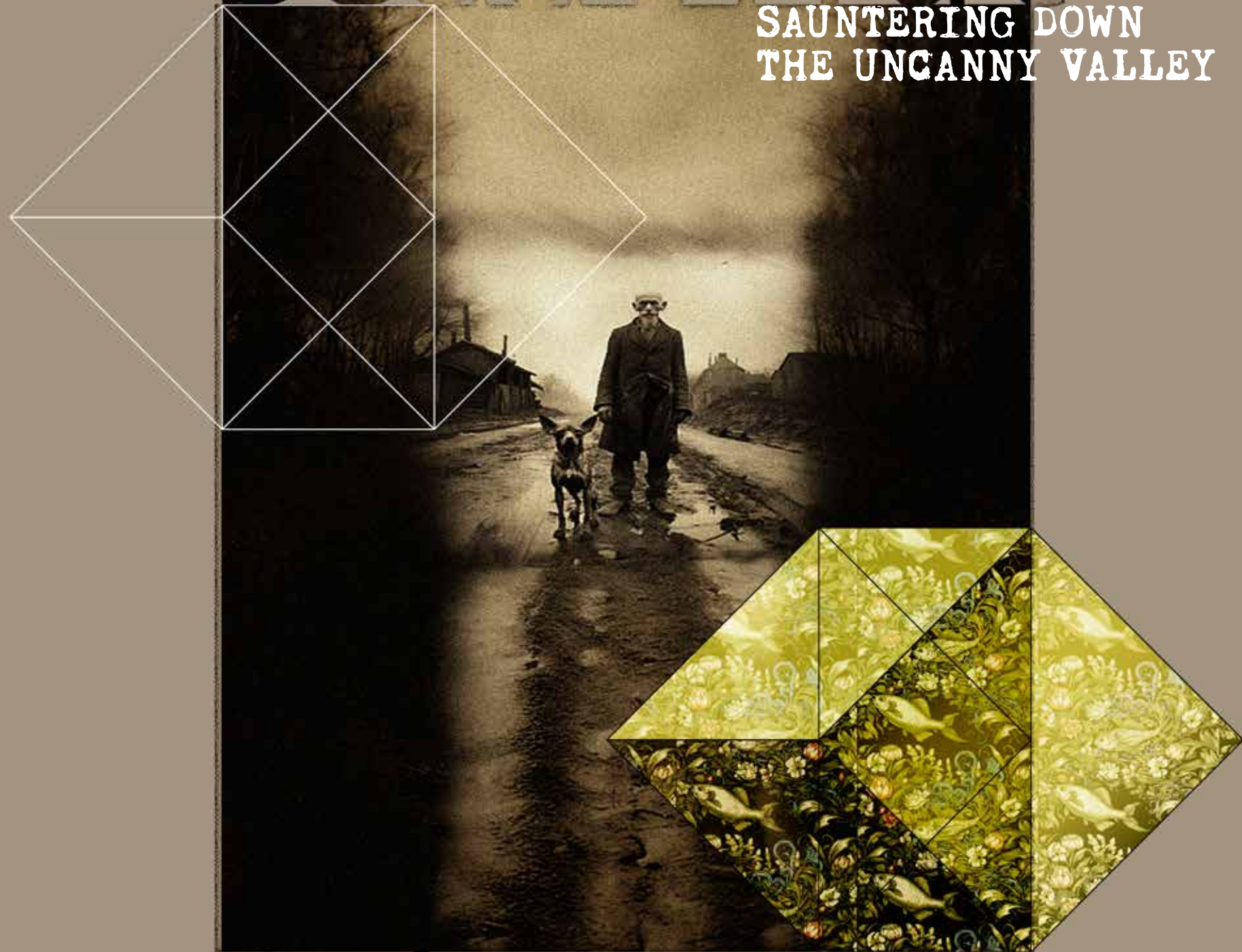Until the clocks tick out the next moment of our lives,

we listen for the faintest tinkling of hope,

and bear witness of this time as sentinels ourselves.

sentinels

A Beautiful Cube

SAUNTERING DOWN THE UNCANNY VALLEY

ON BEAUTY AND ARTIFICIAL INTELLIGENCE

In a prior article, I reflected on the designer's embracing of arcane methodologies as a suitable response to the dehumanizing aspects of digital production and imagery produced by artificial intelligence. As stated in that article, "For me [using arcane image-creation technologies and methods], the magic occurs when there is some image revealed that bears the beauty of ineffable analog uncertainty; to create a beautiful mess, collaborating with untamed Nature. Today's digital technology may be able to replicate analog means, but it does so in a very constrained predictable fashion. It can never truly match up to the true analog or what Nature can do — therefore, it can never really create such a beautiful mess apart from the arcane."

The phrase "beautiful mess" is significant. It begs the question, what is beautiful? This led to a deeper exploration of the concept of beauty as explored in philosophy and Christian theology, and then to relate it to the kinds of imagery an artificial intelligence would generate. The core question I am asking is: If AI can only replicate the natural and cannot truly create a "beautiful mess" as arcane analog methods can, can it actually create anything truly beautiful at all?

To begin to explore this, we need to have some kind of definition of beauty to work with. Often, when I am looking at and working with AI generated imagery, there are aspects I consider aesthetically beautiful. But I also often encounter within me the disturbing phenomena of the "uncanny valley": the images are almost-but-not-quite perfect and predictably algorithmic. Such perfection exposes the AI image generation as unnatural. I may carefully craft a prompt to generate some image by asking the AI to create using a tin-type photographic style or oil-paint style or replicate historical art movements, but the result is always inauthentic. The images are not tintypes or oil paintings — they are limited-resolution digital simulacra. The resulting artwork may appear beautiful, but if they are inauthentic and too-perfect, can they ever be — in substance — beautiful?

The concept of beauty and aesthetics is a widely-debated topic within philosophy with multiple perspectives. It is out of scope of this article to explore all of them here, but I will attempt to provide a brief overview and my own philosophical position here. In addition, since I also have an interest and formal education in Christian theology which informs my artistic practice, I will also outline my basic understanding from that standpoint.

The phrase "beautiful mess" is significant.

BEAUTY IN WESTERN PHILOSOPHY

PLATONIC FORMS

Plato, in his dialogue "Symposium," suggests that beauty is an abstract, transcendent form or ideal that exists beyond the material world. According to Plato, physical objects are beautiful to the extent that they participate in or reflect this higher, eternal form of beauty. The concept of ideal forms is core to Plato's dualist worldview — the world is made up of material and immaterial realities[68]. Moreover, we must bear in mind that Plato's "philosophy" as it were, is not to be understood as a set of doctrines — it must be lived and experienced in community — not just contemplated.[69]

The ideal forms are core archetypes of the immaterial realm which casts "shadows" into our experience. What we experience in our material existence point to those ideal perfect forms. Today we might think of our world as being physical and spiritual, the physical world being an imperfect representation of the perfect spiritual. This is a classic dualist concept one can find in much of Western philosophical thought. Other philosophers spoke of other realities in addition, such as the mind, spirit and body.

In Plato's Hippias Major dialogue, Socrates and Hippias are discussing a definition of beauty. Hippias, interestingly, begins the dialogue with the human woman as an example of beauty. Through the rest of the dialogue, one can draw a conclusion that, while a complete definition of beauty as an abstract concept is difficult to define, we each innately know beauty because of something within us that resonates with an ideal of beauty deep within our souls. Having experienced it in the realm of the gods prior to our becoming imprisoned in the material world, we know beauty from first-hand experience. Moreover, we can conclude that the highest form of that experience is the human form and nature, created by the gods, even if it is diminished in the material realm.[70]

Therefore, "the fundamental locus of beauty is the human body, and that from there the notion of beauty gets extended to its other potential objects." It is interesting that Socrates, in the pen of Plato, additionally draws a distinction between what is beautiful and only appears to be when talking about something made beautiful by an adornment. Socrates openly wonders if only a appearance would be a deception and not truly beautiful.[71]

If a deception is involved, then one primary criteria for evaluating beauty must be truth or authenticity. Truth and authenticity implies that one *understands* in order to be able to construct a deceit. AI image-generation and large-language-models cannot understand the prompts or the final result, it only appears to us as if it does. If an image is made without understanding, using other reference images as a basis for an elaborate guess at what the user wants to see, can that ever be considered true or authentic? The AI also mimics a human artist in the image-making, but no human is involved, so the mimicry cannot be considered authentic. Therefore, the resulting image must be a deception — only an appearance of beauty and not authentically beautiful.

Now, this presupposes that the definition of beauty here is conceptual and non-sensory. Bu our experience of beauty does involve our sensory experience too, so we cannot remain entirely in the conceptual in our evaluation. We do often experience an AI-generated image as pleasing to our senses. We can, and routinely do, experience inauthentic things positively, and might even describe them as aesthetically beautiful too.

So this begs a question: Can objects be truly beautiful if (1) they only appear so, and (2) beauty itself draws from the human body (i.e. a drawing made by a human hand /form can be beautiful, but one that does not made by a human, generated from a machine, cannot be).

ABOVE: Midjourney image prompt: "A Beautiful Cube"

The images generated by Midjourney in this article are experiments with how the AI represents the concept of beauty. Generally speaking, Midjourney will represent beauty with (1) a white Caucasian woman, and (2) flowers. Even when combined with terms that might contradict the notion of what is, or can be, beautiful, the AI will default to those types of images. This demonstrates both bias in the system toward a certain race and notion of beauty and that it really cannot successfully reconcile opposing concepts as a human might.

Midjourney image prompt: "A Beautiful Crime"

ORDER

Another element of beauty that is common among Western philosophers is the criteria that order is necessary to beauty. What this order is, and where it derives from is an open debate, but it is commonly asserted that the material universe seems to operate within orderly rules when functioning most optimally, and those things that are considered beautiful reflect that orderliness. For some, this might be mathematical order, and for others a more spiritual order. In many creation myths, order conquers chaos; it's triumph over disorder. This orderliness may exhibit itself in degrees, and those things where we sense a deep order have a high degree of beauty.[72]

- *Plato* writes in *Philebus* (64e) that measure and proportion constitute beauty and excellence.

- *Aristotle* (1928: XIII.3, 1078 b 1– 6) associates beauty with order and symmetry and definiteness.

- *St. Thomas Aquinas* mentions proportion and harmony among the three requirements of beauty (*Summa Theologica*, XXXIX).

- *Berkeley* defines beauty in terms of symmetry and proportion that are pleasing to the eye (*The New Alciphron* III, 8),

- *According to Hume:* "Beauty is such an order and construction of parts, as either by primary constitution of our nature, by custom, or by caprice is fitted to give pleasure and satisfaction to the soul."[73]

Midjourney image prompt: "A Beautiful Thing"

ORGANIC FORM

The concept of "organic form" is regarded as one of the elements in understanding art and beauty. According to Ruth Lorand, "An organic form as opposed to a mechanical one clearly accords with the intuition that a mechanical explanation does not comprehensively account for aesthetic experience. Mechanisms look to external forces to explain any change in an object, but the idea of 'organic form' is based on inner forces or structures that determine the nature of the object from within."[74]

Also in Lorand: "The first formulation of art as an organic form, or organic unity, was offered by Plato: Every discourse ought to be a living creature, having a body of its own and a head and feet; there should be a middle, beginning, and end, adapted to one another and to the whole. (Plato, 1970, Phaedrus, 264c) Plato emphasizes the interdependence of the parts of a living body and, by analogy, of a work of art. Although this is one of the essential characteristics of organic form, it is true in general for every individual entity, natural or artificial. It does not exclude, for instance, machines. A machine must exhibit harmony among its parts in order to function properly, each part functioning within the whole and in accord with the others."[75]

Again, it follows that if the highest forms of beauty are rooted in organic human forms, then a major component of what makes an object beautiful must include its relationship to humanity. Was a human involved in its creation, and can one observe the human artist's hand in the work? Is it an object that emanates from one's humanity, augments it or is somehow derived from it?

Therefore, I would ask again, to what degree must an artwork be "human" to be considered beautiful, and how far removed from a human origin can it be before the object becomes relegated to the eerie exile of the uncanny valley. If an artwork is 100% AI or machine-generated, could it ever be beautiful?

BEAUTY IN EASTERN PHILOSOPHY

A BRIEF OVERVIEW OF EASTERN VIEWS

I am in no way an authority on Eastern viewpoints regarding truth and beauty, as it is not within the scope of my own background and research for this article. However, I think it is helpful to outline some of the main concepts here. Much more research into this area would need to be done in order to develop a more complete understanding of Eastern views.

Eastern philosophical perspectives on beauty often differ from Western notions, emphasizing harmony, balance, and interconnectedness with the natural world and the self. While this article is primarily focused on Western philosophical ideas, the following is a simplistic overview of Eastern views.

• *In Chinese philosophy*, beauty is often associated with harmony and balance, both in nature and in human life. Confucianism emphasizes the beauty of ethical and moral harmony in relationships, while Taoism sees beauty in the effortless flow of the Tao, a fundamental principle that underlies and unites everything in the universe.[76]

• *Wabi-sabi* as it is commonly understood, is a Japanese aesthetic concept that finds beauty in imperfection, the ordinary, transience, and the natural world's simplicity. It celebrates the beauty of things that have aged gracefully, emphasizing the connection between human life and the cycles of nature.[77]

• *Eastern philosophies in India* place a strong emphasis on inner beauty and self-cultivation. In Hinduism, beauty is seen as a reflection of the divine within each individual. In Buddhism, beauty arises from a mind free from desires and attachments, reflecting the beauty of enlightenment.[78]

• *In Zen Buddhism,* beauty is often found in the interconnectedness of all things and the direct experience of reality. Tibetan Buddhism, with its intricate mandalas and thangkas, conveys the beauty of the universe's interconnected patterns.[79]

OPPOSITE: Midjourney image prompt: "A Beautiful Repeating Pattern of Flowers and Angry Zombie Fish in the Style of William Morris"

BEAUTY IN CHRISTIAN THEOLOGY

BEAUTY AND THE BIBLE

I personally cannot reflect on beauty without considering the degree by which my own attitudes are formed by my Christian worldview. It is a deeply-embedded element of my thought-process and creativity and informs all of my work. I will outline some of the basic elements from an orthodox Christian perspective. (By orthodox, I mean all Christian sects which would align their beliefs with the historical Apostles' and Nicene Creeds.)

Fort he Christian, the ultimate template for beauty is found in God's own divine attributes and the creation of an orderly universe that follows certain universal, natural laws. At the creation, which He declared as "very good" in Genesis 1:31a: "God saw all that he had made, and it was very good." (NIV). In addition, all humans were made in the image of God, the *imago dei*, (Genesis 1:26), which confers upon humanity a number of God's own attributes and power, such as creativity, and the authority to act as God's regents in the world (Genesis 1:28). A complete discussion of the *imago dei* would fill volumes, but here I would simply emphasize God's creative ability and skill, which we share with God in varying degrees.

Disastrously, creation itself was damaged through human rebellion by our first parents. This damage separated humans from the intimate relationship we were designed to have with

God and his Creation. Death and disorder entered the world, and it became both God and humankind's mission to re-order it (Genesis 3). We do this well sometimes, and sometimes not, in varying degrees. My personal view is that when an artist or designer is driven to work, creating order from disorder, that artist is participating in this divine mission at some level.

God also sets humankind at the pinnacle of His created order. In Psalm 8, the Psalmist David is in awe of the stars and creation, but is even more in awe of the fact that in God's huge beautiful universe, He chose to have a personal relationship with humankind. Furthermore, though the created order is corrupt by human rebellion (sin), and humans are separated from God at birth (what is called 'original sin'), all creation still awaits and longs for its restoration back to the perfect original state. But humans cannot restore creation ourselves, since it was humans who rebelled against God's order in the first place and introduced sin into the world.

And it is because of God's love for humanity and His creation that He took action to restore it when we could not. The act God takes in order to enable that restoration is to become incarnated as fully human Himself, as Jesus Christ. This act, among many other things, displays the primary concern of God for His world and especially humans made in His image. Art,

and creative activity, are small examples of incarnational activity — God becoming human, spiritual ideals made material.

A major aspect of God's order is truth.[80] There is light and there is dark, and one cannot inhabit the other. When the sun rises, darkness scatters. This is an example of a universal and unchangeable truth about our world. The times and seasons may change, but the fact that darkness is banished by a single ray of light does not. In fact, darkness is only the absence of light — it does not exist. Similarly, things that exhibit God's good order are truthful — they adhere to their own natures as best as can be apart from the natural corruption that affects everything.

An artist working within God's order will be authentic and seek the truth of what they desire to express through the work. When we see an object with honest materials, even those with flaws, we see the truth of the work and consider it beautiful. This is why we even understand flaws to contribute to beauty at times — it displays the honesty and character of the human artist and the divine inspiration underneath the artist's hand, and may contribute to the work's meaning and message if it has one.

Therefore, we innately sense God's order, much like Plato's world of immaterial forms, and experience beauty when we observe the "very good" order. When we see a beautiful sunset or landscape, we observe something of the perfect creation God made for His own enjoyment and ours. When we see the hand of the artist revealed in a work, we know that an image-bearer has made their mark on it and sense the beauty in the craft of it. It is a truthful, authentic object.

The degree by which we sense and can appreciate that natural order in a created object, the deeper our sense of beauty arises within. This happens naturally, whether we know of or believe in the Christian worldview or not — it is universal. Whether one looks at concepts of beauty from Eastern or Western perspectives, or others I have not mentioned here, there are many formulations for what constitutes beauty which overlap the Christian worldview very well. Therefore, I believe this to be a universal truth regardless of religious tradition or belief.[81]

BEAUTY, THE SUBLIME AND THE GROTESQUE

It is ironic that we often find things which are corrupted in some way, or grotesque, to be beautiful as well. I think sometimes we need to clarify our terms and what we mean by beautiful here. We may see some work of art that has flaws or is a grotesque subject and have an experience which is highly emotional and moves us in some way. It may even generate a sense of awe and wonder — emotions which we often associate with our experience of beauty.

I think that sometimes, when we are moved by these emotions, we are taken in by the sublime rather than the beautiful. They are not synonymous, but neither are they mutually-exclusive. Experiencing something as sublime is a transcendent emotion which does often create a sense of awe. But, the object which inspires such emotions may not be actually beautiful, though we might describe it that way because of the limitations of language.

Sometimes, however, that which is grotesque or flawed may exhibit many aspects of those things which we consider beautiful.[82] We may be struck by a composition of elements which is aesthetically-pleasing. We may find colors that are attractive. Or, we may find the honesty and truth of the message of the work to be worth considering as beautiful.

The flawed object or "poor image"[83] may also showcase some natural aspect that points to the beauty of nature itself. I am thinking of images which have imperfections that expose the paper or substrate in an aesthetically-pleasing way.[83] They may be interesting, or they may contribute to the authenticity we sense of the artist's work or message.

RIGHT: Midjourney image prompt: "A Beautiful Rotting Fish"

BEAUTY AND THE BANAL

There is a honesty and truthfulness to everyday objects, such as a spoon or coffeepot, which may not inspire a sense of beauty within us. It may be that in the manufacture of such things, materials are chosen which do not contribute to the lasting quality of the piece, and are therefore forgettable objects, examples of the banal.[84]

However, one may use quality materials and embellish the object such that it becomes a lasting heirloom. In these cases, they are also rare and/or unique items — it takes much more time and effort to create a hand-crafted golden spoon rather than a simple mass-produced plastic one, though they both might serve soup equally well and are of equally simple design. Moreover, the golden spoon may have slight flaws in the design because of its handmade production. But it is the golden spoon we would describe as beautiful, not the plastic one.

What might the true difference be in this case? I think one aspect of beauty at work here is the rarity or uniqueness of the object, as well as it's quality and hand-crafted nature. The spoons are both "truthful" objects because they are true to their nature as functioning spoons, but the one is a precious heirloom reserved for special occasions and the other is a disposable tool, destined for the landfill. Because of the relative value of the golden spoon over the plastic one, we may describe the golden one as therefore "beautiful."

ABOVE: Midjourney image prompt: "A Beautiful Spoon"

BEAUTY AND A.I. GENERATED ART

I have attempted to describe above some of what the characteristics are that, for me, constitute the concept of beauty. It is a complex subject and hard to nail-down. However, at this stage, a simple working definition might be:

"That which is beautiful is that which inspires in the beholder a positive sense of awe and wonder, based on its human, organic, or natural origins and points to a stable orderliness that adheres to natural and/or divine laws and is true to its nature and/or message."

THE KEY ELEMENTS OF BEAUTY ARE:

1. Humanity
2. Nature
3. Order
4. Truth

ABOVE Midjourney image prompt: "A Beautiful Repeating Pattern of Flowers and Dead Fish in the Style of William Morris"

That which is beautiful is that which inspires in the beholder a positive sense of awe and wonder, based on its human, organic, or natural origins and points to a stable orderliness that adheres to natural and/or divine laws and is true to its nature and/or message.

SO WHAT OF ARTIFICIAL INTELLIGENCE?

I think first we have to understand that what we are calling an "intelligence" is actually not, but a complex set of algorithms that appear intelligent to us. This is debatable, since there are those who believe that humans themselves are simply biological machines running complex algorithms. So, the definition of what constitutes intelligence may be a matter of degrees of complexity within a computer, regardless of whether it is a carbon-based or silicon-based computer. I do not hold this view. I believe intelligence is in varying degrees different than an algorithm and must include immaterial aspects of the mind and consciousness which is another deep subject beyond the scope of this article as well.

That leaves us to define the AI image-creating application such as Midjourney or Dall-E2 as an inanimate tool of some kind. A powerful tool, indeed, which can dramatically shorten the time it takes to create rich-media imagery. So, let's evaluate this tool along the four elements of beauty above and determine whether we can truly say that AI-generated art can be beautiful or not.

Humanity: The question here is "where is the artist in the work"? I would say that for the image-generation itself, the artist becomes a prompt-writer and curator of the results of the tool. This does require some skill to do, and an eye for aesthetics in the result. However, the artist is not really directing the work itself, how it is composed or rendered. The artist is only curating the results from a large group of "educated guesses" from the AI tool.

Nature: The resulting artwork is a generated by ones and zeroes, even though it may appear to be painterly or photographic. It is pure information, and is limited in size, resolution and quality. The information contained is actually much less than information contained in a hand-drawn work, because the materials and action of the artist also conveys information about the work. In AI work, the materials are non-existent, so it is always limited to the ones and zeroes.

Order: As a result of its programming, Midjourney does a much better job of following classic aesthetic rules than Dall-E2, in my opinion. But, both do this well in general, because of its programming and algorithms, not because of its intelligence. It does not understand what it is doing when composing an image. It doesn't take much experimentation with the AI tools to see that the AI does not understand the classic rules of design, color and composition, but only does what is pre-programmed to do. It cannot "break" its own design rules whether or not it could try to. Humans can, with very dramatic, and yes, beautiful, results at times.

Truth: This is where AI really fails. AI is trained with other images which it mimics through a complex set of guesses called a "generative adversarial network". When the user is presented with the results, the user then 'scores' the results and generates variations as the user gets closer to the desired image. It is only mimicry of content, materials and form, but put together in a convincing manner. The end-result is what appears to be original, but truly is not. The resulting image also contains flaws that the human probably would not create (try rendering human hands sometime), and is also too flawless in a ways a human artist would naturally be. The final image is convincing to the average observer, but the flaws and lack of them is something which is noticeable by an experienced human. The effect of this is often an image that inspires a deep eerie feeling of the uncanny, not beauty. It may be sublime, but not beautiful in many cases.

Midjourney image prompt: "A Beautiful Cube Walking Through the Uncanny Valley as a Tintype Photograph"

I also often encounter within me the disturbing phenomena of the "uncanny valley"

I also often encounter within me the disturbing phenomena of the "uncanny valley": the images are almost-but-not-quite perfect and predictably algorithmic. Such perfection exposes the AI image generation as unnatural. I may carefully craft a prompt to generate some image by asking the AI to create using a tin-type photographic style or oil-paint style or replicate historical art movements, but the result is always inauthentic. The images are not tintypes or oil paintings — they are limited-resolution digital simulacra. The resulting artwork may appear beautiful, but if they are inauthentic and too-perfect, can they ever be — in substance — beautiful?

CONCLUDING THOUGHTS

My experience in working with AI image-generation tools leads me to believe that the tools are powerful and useful, which can be used to create beautiful work. However, the above criteria needs to be met in the final results in order to be considered truly beautiful, at least in a technical philosophical sense. AI tools can create a "counterfeit-beauty" but I think that is really better described as sublime or by other descriptors, reserving "beautiful" for work that clearly is.

In working with AI, I would seek to use the imagery as raw-material for the final pieces where I have more control and therefore more opportunity to show the humanity in the work. I would seek ways to subvert the digital nature of it somehow and combine it or present alongside some natural process or something inspired by the created order. I would make sure the compositions are reflecting an orderliness and not chaotic quality and I would also think that primarily truth needs to be preserved. If using AI tools, the artist must be honest about it — in doing so, the AI art is true to its digital nature, which maintains integrity in the work.

Can AI art be beautiful? Yes, but only inasmuch as it is used with integrity.

NOTES

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70 Ibid., pp. 12ff

71 Ibid., p. 19: "Hippias answers, as any good sophist should, that the beautiful is what makes things appear as beautiful (*ho poiei phainesthai kala*—294a), but the example he gives in clarification gets him into difficulty. For he adds as an example: 'as when a man puts on clothes or shoes that fit, even if he be ridiculous, he appears more beautiful.' This example opens the way for Socrates to argue that this would make the beautiful deceptive, and something deceptive 'would not be what we are looking for, would it Hippias?' (294b). He goes on to insist that the beautiful must be not what makes things appear beautiful, but be beautiful (294c)."

It is interesting here that Socrates, in the pen of Plato, draws a distinction between what is beautiful and only appears to be, which would be a deception and not truly beautiful. With AI tools, can they be truly beautiful if (1) they only appear so, and (2) beauty itself draws from the human body (i.e. a drawing made by a human hand /form can be beautiful, but one that does not made by a human, generated from a machine, cannot be).

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82 Mircea-Ioan Lupu, "Grotesque as Aesthetic Identity: From Medieval Illumination to Contemporary Art ," EIRP Proceedings 8 (May 1, 2013).

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84 For a good overview of the banal in contemporary art, see: Bendetta Ricci, "The Aesthetic of the Banal in Contemporary Art," Artland Magazine, January 9, 2021, https://magazine.artland.com/the-aesthetic-of-the-banal-in-contemporary-art/.
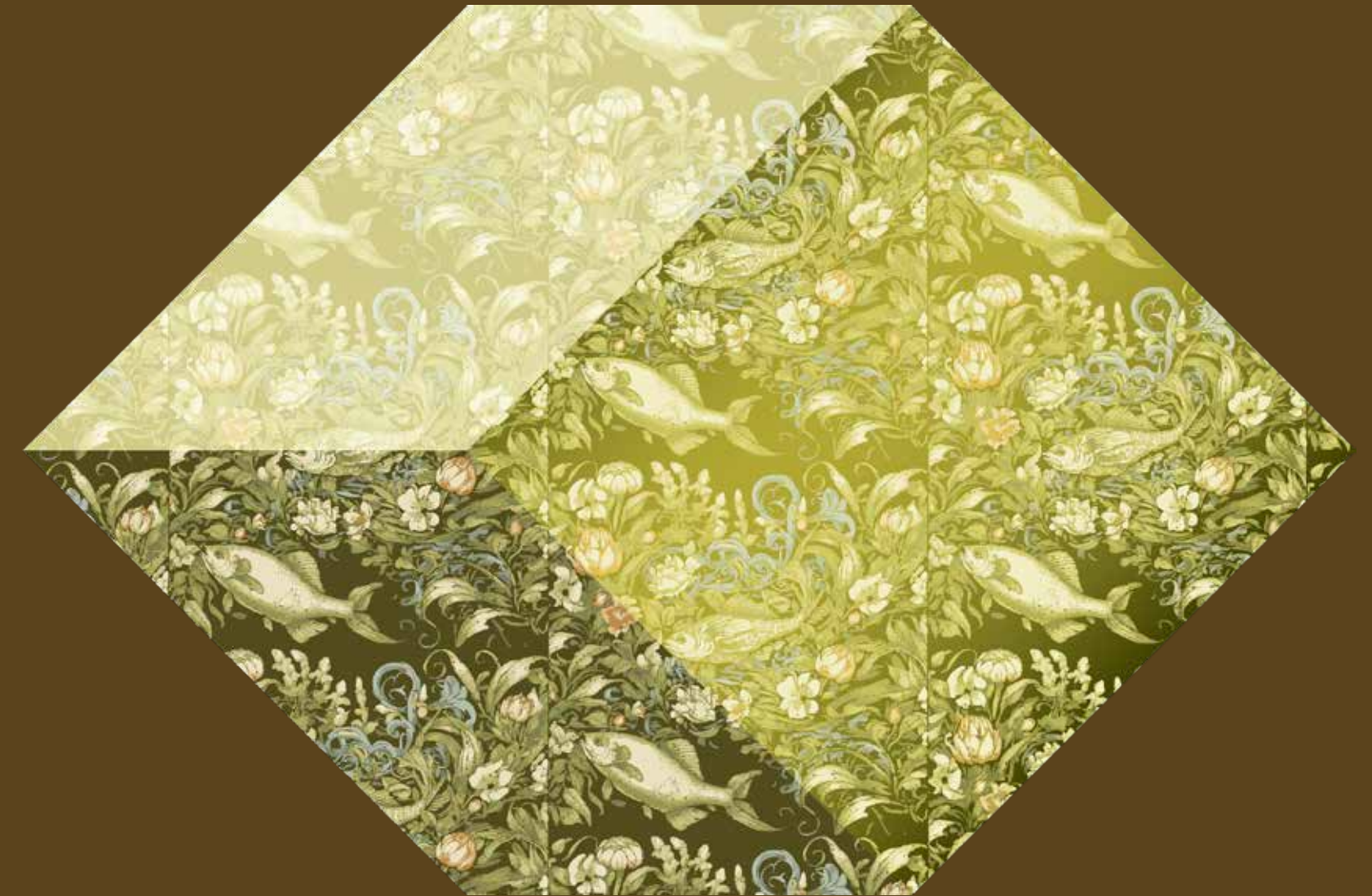
ABOVE: Art created in Adobe Illustrator using a repeating pattern generated from Midjourney

con CLU Sion ?

I began my thesis by stating that we seem to be living in an age where everything seems artificial. As I consume media, I am often struck by the unsettling feeling of the Mandela effect — that I must be misremembering something that I could have sworn was true. As I observe the wider culture, I cannot help thinking that I must not be alone in this. What is true, after all, if our own minds betray us? How can our society, let alone civilization, survive if we are all living in our own version of reality, disconnected from others?

As we move forward into the future with so much of our lives automated through artificial intelligence, we are becoming dangerously dependent on our digital technologies to arbitrate truth for us. We have outsourced our knowledge and memory to Google, ChatGPT, and a plethora of other digital platforms. Herein lies the danger: these platforms are unreliable sources, yet we are increasingly dependent on them to function.

Narrowing the focus to my own discipline as a graphic designer, I need to understand and trust that the visuals I use and designs I create are truthful representations. The power of design forms attitudes and tastes, far beyond aesthetics. Through my art I can educate, persuade, steer opinion, advocate for social issues and even impact my audiences' understanding of themselves as individuals. To do that, I must effectively employ aesthetics to deliver the message — in authentic and, hopefully, beautiful ways that honor and respect our common humanity.

For designers like me, technology is crucial to success. Therefore, having a solid understanding of how artificial intelligence works and where the ethical boundaries lie is also crucial. I want to create work that is authentic to me, as an artist. I also want to create work that advances the field and employs technology effectively.

The challenge in trying to understand the importance and impact of artificial intelligence lies in how quickly the field is changing and evolving. As I was writing these articles, the technology has been advancing rapidly, with new breakthroughs every day — sometimes it seems every hour! It is nearly impossible to be current with every new advance.

However, the core concepts of truth and it's intersection with beauty is not so malleable nor transient, at least in my view. For me, truth must represent reality in trustworthy ways, or it is not truth at all. What is true cannot be untrue, and vice-versa. Beauty must also be authentic, rooted in the truth of our natural world. Untruth cannot be beautiful. I do not hold such relativistic views as our culture does presently about these topics. Constantly holding contradictions "in tension" in my mind is exhausting, and pointless.

Aesthetic beauty itself may be more fleeting and variable through the whims of personal taste. However, I do gravitate toward a more classical Western understanding of aesthetics in that, whatever it is, truth and order are foundational. This is, of course, due to immersion in my own Western Christian worldview with its many presuppositions that operate unconsciously alongside my own theological and philosophical convictions. I admit I am like a fish swimming in an ocean without knowing it is wet — and my worldview is that ocean.

I am no expert in all the various philosophies of beauty, and much ink has been spilled over centuries of grappling with the topic. The fact of that struggle to define beauty underscores its importance to our common human experience. My authority to write on this topic instead stems from my own practice as an artist and my educational background in theology.

In these pages I have often asked difficult questions and painted a fairly bleak picture of what our future may hold if we do not wrestle with these challenges. I have also not presented solutions to the questions I have raised — those will require more research and work in the future. Instead, for now, I feel it is enough to ask the questions.

When confronted with the questions I have raised, we may choose to "check out" and let the chips fall where they may in regard to the massive impacts we face as a result of the onslaught of AI technology. Or, we may engage the topic with rigor, unsatisfied with allowing ourselves to remain ignorant of the dangers posed. I am hopeful that some of us will rise to the moment and take on the latter.

The reader may agree or disagree with my thesis here, but ideally it has spawned some new thinking in regard to the challenges that artificial intelligence presents us. I have at least demonstrated some ways visual artists may employ these new technologies ethically while remaining true to themselves. In this, I hope to have made a positive contribution.

Soli Deo Gloria,

Jon C. Wretlind,
December 2023

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