

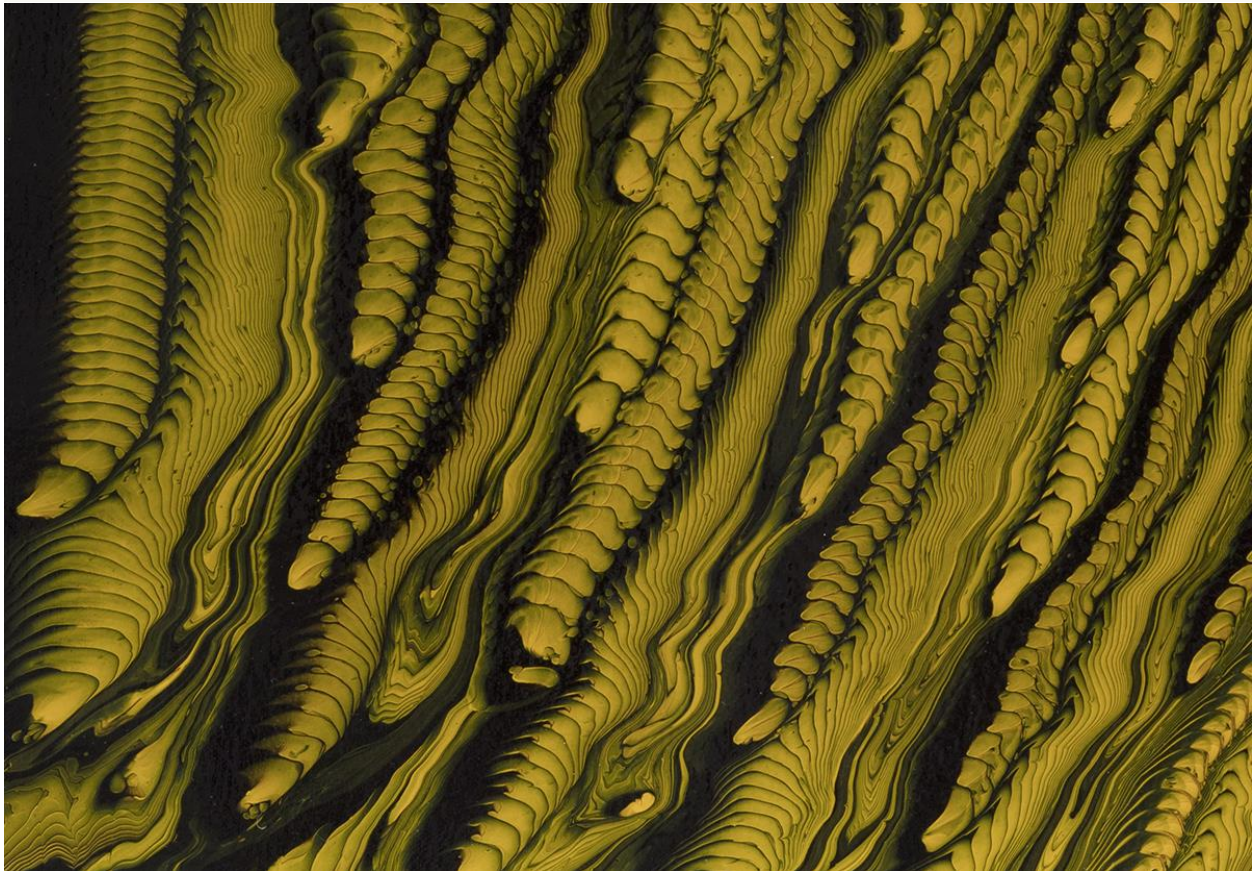
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Provan, Alexander. "Playing Dice with the Universe," *Art in America*, December 9, 2021

Art in America

PLAYING DICE WITH THE UNIVERSE

By *Alexander Provan*  December 9, 2021 10:51am



Tauba Auerbach: *Extended Object* (detail), 2018, acrylic on canvas with wooden stretcher and aluminum frame, 14 by 18 inches overall. PRIVATE COLLECTION/COURTESY PAULA COOPER GALLERY

In the fall of 2020, Deutsche Bank's "Long-Term Asset Return Study" announced the Age of Disorder: an era of clashing superpowers, worsening inequality, faltering economies, quarreling generations, deteriorating ecosystems, and suffering populations. Instead of identifying a path from crisis to opportunity, the investment bank simply advised readers to avoid "extrapolating past trends." Reading summaries of the report in the press, I was disoriented by the mix of dutiful doomsaying and eagerness to drop a buzzy, epoch-defining slogan, as if disorder were just another trend to be tagged and tracked. As I delved into the report's accounts of debt, inflation, and the "new Cold War," I wondered where people without high-performing assets might turn, beyond schemes to dispossess unrepentant boomers.

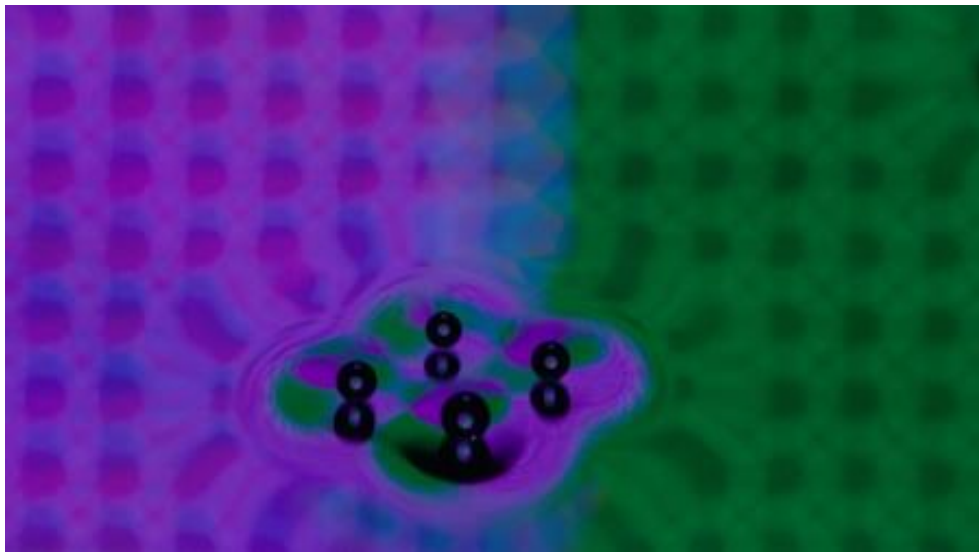
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To the heavens, perhaps? A writer I know had been chronicling the anxiety-fueled surge in astrology, and she pointed me to highly rational, distressed acquaintances who'd become preoccupied with star signs and tarot. I took note of teachers, economists, lawyers, and journalists who were adopting a symbolic system that ties human agency to the transit of celestial bodies, and artists who were creating horoscope-themed performances and paintings.

Though isolated and dejected, I found little comfort in recognizing myself as a sea goat with an exceptional aptitude for navigating emotional and material terrain, i.e., a Capricorn. I questioned the correlation between spirituality and disorder: How much fragmentation could people endure before giving up on the reassuring explanations of the zodiac? How much chaos could they hope to ward off by abandoning states, banks, and economists for astrologers (or apps offering "mystical services")?

Of course, the appeal of alternatives to corrupt institutions, failed ideologies, and bogus authorities is understandably high, especially for those who haven't figured out how to profit from collapse through investment hacks or astrology start-ups. Few artists in recent years have been as steadfast in countering the chaos and locating sources of cohesion as **Tauba Auerbach**. For the past two decades, Auerbach has sought universal structures and signs amid the polarization and breakdowns in communication. They have looked to science as others have looked to astrology: for a fount of meaning that stands apart from everyday life yet imprints each action, each organism. To Auerbach, everything is connected: the neurons that trigger our thoughts, the molecules that compose our bodies, the mechanisms that make up space-time, and the symbols that populate our expressions. Charting the connections in paintings, prints, sculptures, publications, musical instruments, timekeeping devices, custom software, typeface specimens, and a decommissioned fireboat, Auerbach has come to be known as a restless thinker and protean maker whose province is the entirety of human knowledge—a refreshing contrast to the current tendency in science and art to claim and defend a professional niche.



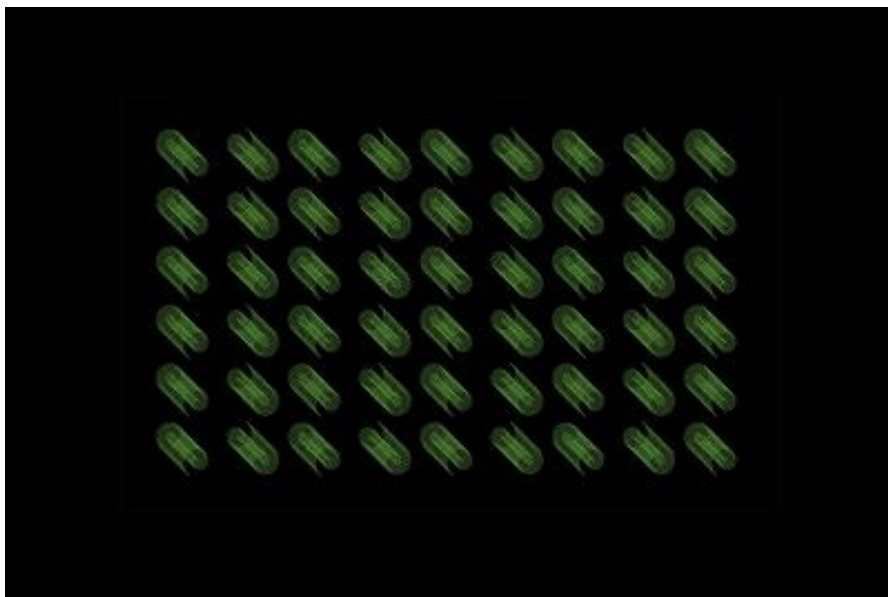
Tauba Auerbach: *Pilot Wave Induction III*, 2018, video, 9 minutes, 3 seconds.
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Auerbach's survey at the San Francisco Museum of Modern Art, "S v Z," which opens December 18 after being delayed due to the pandemic, presents the artist as an avatar of the era of particle accelerators, electron microscopes, and CAD renderings of polytopes. The exhibition samples several bodies of work that take on nothing less than the nature of being as theorized in various branches of science (and expressed in art, design, and ritual). The video *Pilot Wave Induction III* (2018) reimagines an experiment with droplets of oil bouncing on a vibrating pool—an illustration of an alternate (and recently disproven) theory of the quantum world in which particles "surf" on waves—to a soundtrack of frenetic, polyrhythmic drumming; the painting *Shadow Weave – Chiral Fret Wave* (2014) takes up the similarities between age-old decorative patterns and the construction of molecules, mapping one onto the other. Without characterizing the world as static or even knowable, Auerbach renders the disorder of our era as merely superficial—contrary to the fundamental state of things—if also menacing and insurmountable.

Auerbach sorts through research on perception, physics, consciousness, textile patterns, physiology, iconography, ritual, typeface design, and n -dimensional space in order to identify primordial figures that span nature and culture. They track the helix from the structure of DNA to the tissue that encloses muscles to the symbolic hand gestures found in Hindu rituals to the shape of the yin-yang emblem. They inventory ornamental motifs that span eons and continents, such as the fretting that crops up on Aztec temples, ancient Greek pottery, and Ming-era textiles. Another fixation is chirality, the property of figures that are nearly identical but slightly asymmetrical, such as rotating particles, human hands, and Möbius strips. To Auerbach, these shapes reveal "something...that is key to life," as [SFMOMA](#) curator Jenny Gheith relays in her essay for the hefty exhibition catalogue. In making them—or the relations between them—legible, Auerbach evokes an "architecture of connectivity" that encompasses minds and bodies, individuals and societies, space and time.



Tauba Auerbach and David Reinfurt: *SPIRAL INDUCTION*, 2017, screensaver.
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Auerbach grew up in San Francisco, spending several years as a sign painter, and they are adept at transmuting abstruse concepts into concise, engrossing compositions. Having honed a visual language that is heavy on pulsating patterns, bold geometries, and swaths of eye-catching color, Auerbach seems to relish the challenge of devising the most alluring, graphical forms from the most head-spinning ideas. Consequently, Auerbach has come to stand for a style of conceptualism that appeals to TED Talk fans as much as art history PhDs, and features on design blogs as well as at the prestigious Paula Cooper Gallery, which represents the artist. The feedback loop between Auerbach's intellectual inquiries and aesthetic preoccupations is apparent in the migration of the helix from phantasmal glass tabletop sculptures to a design for the Vienna State Opera House's monumental safety curtain. Likewise, four-dimensional forms—ambassadors from a domain beyond human perception—appear in Auerbach's elaborate handmade pop-up books and album covers for the avant-rock band Zs. The screensaver *Spiral Induction* (2018), a favorite of mine, takes Auerbach's studies of universal forms into the realm of digital hypnosis, countering the standard, deadening state of absorption with morphing spirals that calm the eyes and mind.

Auerbach's sleek and pristine style suggests the imposition of order on the mess of the world. But the artworks are more like theories than conclusions: they are efforts to discern and convey an order that already exists, but that cannot be fully measured or comprehended. The enormity of those efforts may not be apparent at first glance, as tends to be the case with the most elegant theories. The artist's labor is crucial to the construction of the work but rarely impinges on the surface. To make *Compression System (Marble)*, 2013, for example, Auerbach printed a scan of a marble slab on both sides of a sheet of paper, then adopted origami techniques to painstakingly fold and crease the image into a transcendent, tessellated distortion of the original.



Tauba Auerbach: *The New Ambidextrous Universe III*, 2014, plywood and aluminum, 96 by 48 by 1 1/2 inches.

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Auerbach's titles often strike me as stifling, casting the artworks as stand-ins for concepts, or signposts that direct viewers to the required readings (as if they'd otherwise be at a loss). Unfortunately, the deferential essays in the catalogue for "S v Z" reinforce the notion that digesting the artist's bibliography is a precondition (or substitute) for a meaningful viewing experience. But works like *Compression System (Marble)* are likely to have a palpable, disorienting effect on anyone who spends hour after hour navigating between the second and third dimensions, i.e., between LCD screens and tangible objects. My ignorance of theoretical physics and chirality hasn't stopped me from appreciating the alchemy of Auerbach's "The New Ambidextrous Universe" (2013–14), a series of floor sculptures first exhibited at the Institute of Contemporary Arts in London. Each sculpture is made by a subtle act of creative destruction: using a water-jet to cut a sheet of plywood into crooked curves, Auerbach puts the pieces back together in reverse order to generate an asymmetrical reflection of the bygone original. The slats evoke waves rippling across the surface of an impossible pond, with mesmerizing currents and gyres formed from the stained portions of plywood.

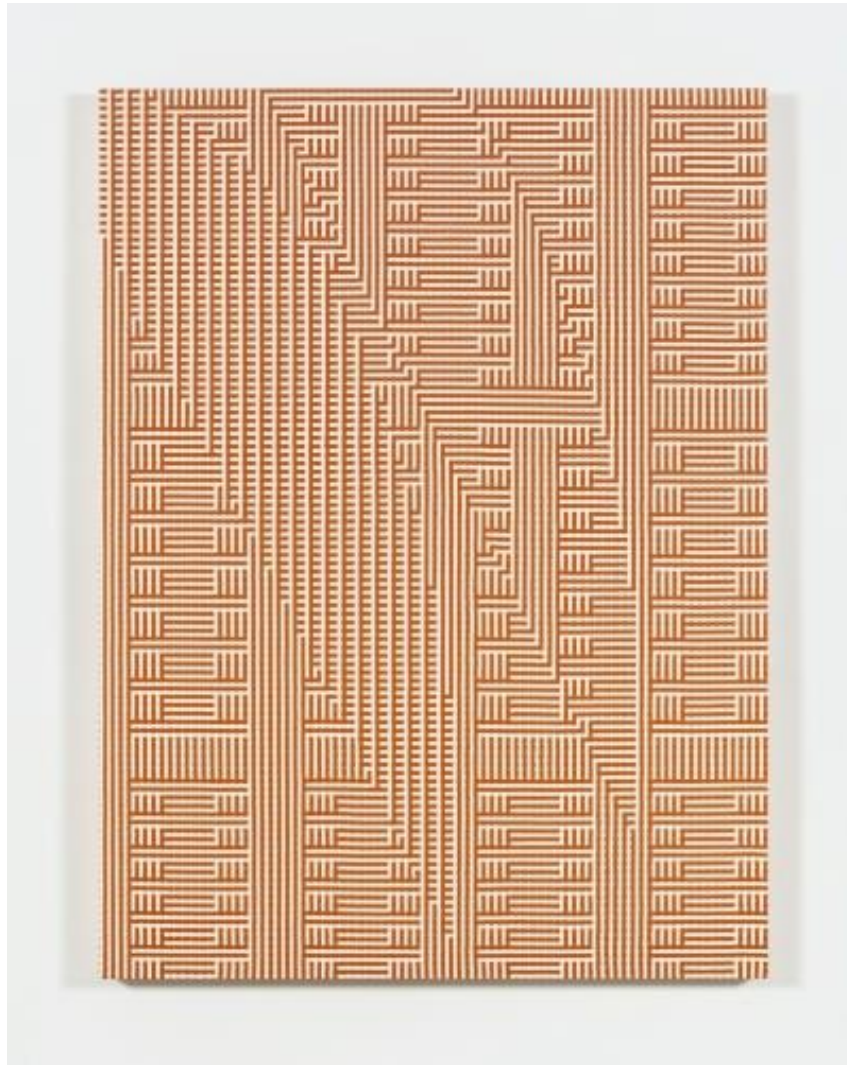
"The New Ambidextrous Universe" is named after Martin Gardner's influential 1964 book, which covers asymmetry in chemistry, biology, astronomy, culture, and beyond. Clearly, Auerbach is inspired by Gardner, but the artist's sculptures don't examine the writer's ideas so much as absorb them and flag the reference. Like so many of Auerbach's works, the reconfigured sheets of plywood instantiate the circuit between the natural and artificial, with the human positioned as conductor.

What to make of that position? To me, the answer has to do with a shift in the role of science, from equipping people to master nature (and subjugate each other) to insisting on the entanglement of humanity and everything beyond that category. The destruction of the planet may yet be countered by dramatic discoveries and ingenious inventions, but the pursuit of such remedies must be accompanied by a sense of modesty and fallibility, an alertness to the consequences of so much scientific knowledge having been channeled into a myopic, megalomaniacal vision of progress. In the novel *When We Cease to Understand the World* (2021), which narrates the development of quantum mechanics—the precursor to the atomic bomb—in the 1920s, Benjamin Labatut writes, "However much we scrutinized the fundamentals, there would always be something vague, undetermined, uncertain, as if reality allowed us to perceive the world with crystalline clarity with one eye at a time, but never with both."

Why pretend that scientific knowledge affords omniscience? Auerbach's work asks us to content ourselves with an understanding of the inseparability of all matter, the interdependency of all life. And, increasingly, Auerbach seems to realize that, in order to assimilate such abstract notions of unity, people need more than mathematical proofs and geometrical figures—they may not have to watch David Attenborough, but they need to *feel* something. Auerbach has moved beyond the entrancing superimpositions of digital and organic patterns in the "Shadow Weave" paintings (2011–15) to films, installations, and performances that orchestrate pulses and waves so as to produce the same consciousness-altering effect as psychedelics. (Recent exhibitions have edged toward synesthesia, thanks in part to collaborations with Zs and Éliane Radigue, a pioneering composer of electronic music.) And Auerbach has adopted unorthodox methods and custom rake-like tools, inscribing canvases with handmade wake patterns and fractal curves that seem to hail from higher dimensions. "I don't want to draw a wave," Auerbach says, "I want to ingest one, be one."

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Tauba Auerbach: *Shadow Weave-Metamaterial/Slice Ray*, 2013, woven canvas on wooden stretcher, 60 by 45 inches.

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I can't say if Auerbach has become (or turned anyone else into) a wave. But the artist has camouflaged New York City's *John J. Harvey* fireboat as a wave, covering the exterior with red and white renderings of the water on which the historic vessel cruises. The floating sculpture, *Flow Separation* (2018), was commissioned by the Public Art Fund and spent one year at docks in Manhattan and Brooklyn, ferrying passengers on weekends. Auerbach's modification of the boat echoes World War I "dazzle ships," whose disorienting designs were meant to throw off enemies monitoring the seas. But rather than use geometrical figures to produce optical effects, Auerbach turned to the methods of paper marbling: the artist dropped ink into a bath and combed the surface to create wake patterns that double as painterly illustrations of the principles of fluid dynamics, which were then imprinted on paper and reproduced on the boat's surface.

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Tauba Auerbach: *Flow Separation*, 2018, presented on Fireboat John J. Harvey in New York Harbor.

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Tauba Auerbach: *Flow Separation*, 2018, presented on Fireboat John J. Harvey in New York Harbor.

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Seeing the boat coast on the East River, I marveled at the impressions of currents and eddies mirroring the movement of water, and at the notion of each form animating the other. And, walking by the ship's dock beneath the Brooklyn Bridge, I watched hordes of excited tourists posing in front of *Flow Separation*—an extraordinarily curious backdrop for selfies, a scientific diagram moonlighting as a hashtag. To me, *Flow Separation* epitomized the pop-science sublime: the overwhelming, humbling, Kantian sense of totality as harnessed by Radiolab, as signaled by celestial synth chords and exclamations of "Whoa!" The boat was overlaid with intersecting phenomena and theories: the majesty and metaphoric potency of fluid dynamics; the conundrum of wave-particle duality, a symbol of the persistent limits of human knowledge; the ambition of the historical avant-garde to access an ethereal plane via abstraction; the success of the military in putting the dreams of scientists and artists in service to death and destruction. I couldn't hope to disentangle these ideas, so I stood in awe. But at what, exactly? The experience of wonder, I thought, comes from being dazed by the quantity of connections, not from grasping one thread or another.



Tauba Auerbach: *Untitled (Fold)*, 2011, acrylic on canvas on wooden stretcher, 60 by 45 inches.

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Auerbach's compulsive conjunction of mind and matter, subject and object, self and subatomic realm, amounts to something like a post-Anthropocene worldview, which might be called connectivism: a devotion to the structures that enable life, accompanied by a faith in the purpose—and potential—of humans as expressions of those structures. The main commandment of connectivism is to merge with all of existence. I've come to think of Auerbach's work as I think of paintings of the Ascension by Renaissance masters: distillations of a cosmology that convey a sense of the miraculous, mostly for the benefit of fellow adherents. I don't expect to fully comprehend, much less assimilate, Auerbach's worldview, at least not in the time I spend at a gallery or museum, but I don't discount the possibility of revelation. (That said, the Renaissance masters served oligarchic royals who relied on religion to pacify overtaxed commoners, and the materialist in me doubts that change will come via millions of Amazon Prime members achieving satori.) Perhaps I haven't been converted because I've often encountered Auerbach's work only online, but the effect isn't necessarily diminished by a lack of context or the lossy translation from object to digital image. In fact, the potency—and popularity—of the work has to do with the combination of an elaborate armature and a screen-primed aesthetic, which, ironically, is captured in the catalogue for "S v Z": the paintings, prints, and sculptures float on cool, gray backgrounds, looking as unabashedly seductive as they are labored and—in every sense of the word—*deep*. The design of the catalogue affirms the distance between the reader and the proper realm of artworks, especially via teasingly detailed photos of wood grains and creased canvases, which in person trick the eye but on paper merely challenge the printer. Nonetheless, the sculptures and paintings travel very nicely as JPEGs, even as product shots: no need for installation photos with contemplative viewers for scale; save the context for the caption.

In other words, Auerbach has a knack for making sophisticated objects that are also arresting images. Paintings like *Extended Object* (2018)—a concatenation of acrylic streams and swirls that evoke a bird's-eye view of an oil spill (and the principles of fluid mechanics)—are at once hermetic and inviting, timeless and on trend, *n*-dimensional and Instagrammable. I don't mean to be dismissive; I'm intrigued (and impressed) by how well Auerbach's work operates in such disparate registers. But I'm also wary of the palatability of the work, which echoes the popular packaging of science as both a wellspring of stupendous trivia and a civic religion. Who could deny the awesomeness of helixes, waves, and frets? Who could argue against natural facts?

To me, the problem is that the unity of all phenomena extends only so far before a description of the world turns into a comforting allegory. The marvel of cosmic forces governing existence is no guarantee of a future. Auerbach's work seems to be animated by faith in those forces—but what about human action, broken connections? The title "S v Z" reflects the artist's desire for the forms of division that plague us to be recognized as unnatural, even ephemeral, given the composition of the universe: "S" and "Z" are imperfect, complementary reflections of each other, and "v," stripped of the standard period, is not a sign of opposition—or even a letter—but the symbol for "inclusive disjunction," which roughly corresponds to "and/or." While I admire the instinct for conciliation, I can't help but imagine a time when Auerbach's emblems of everything fitting together transform into evocations of everything that has fallen apart.