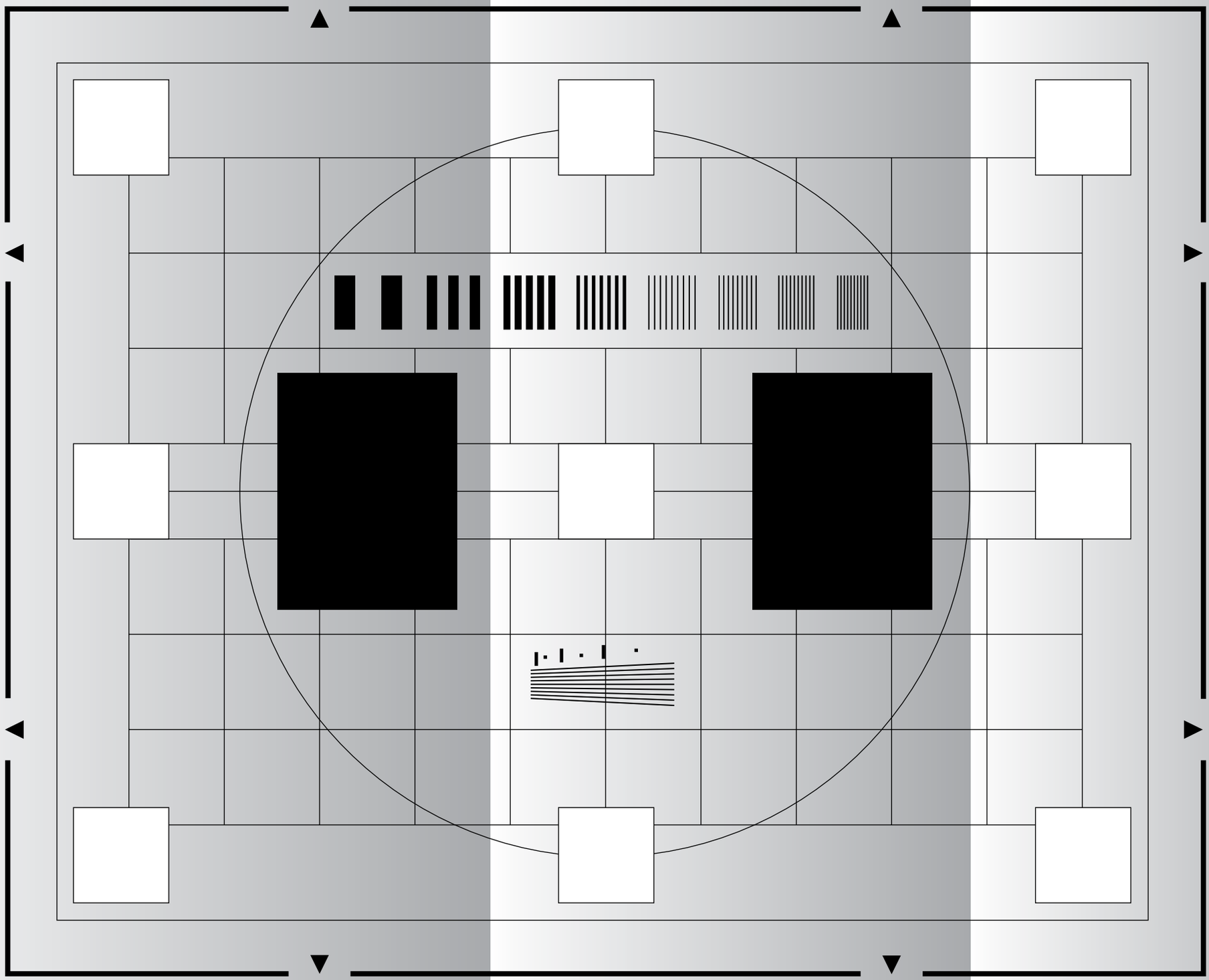
A Global Climate Event



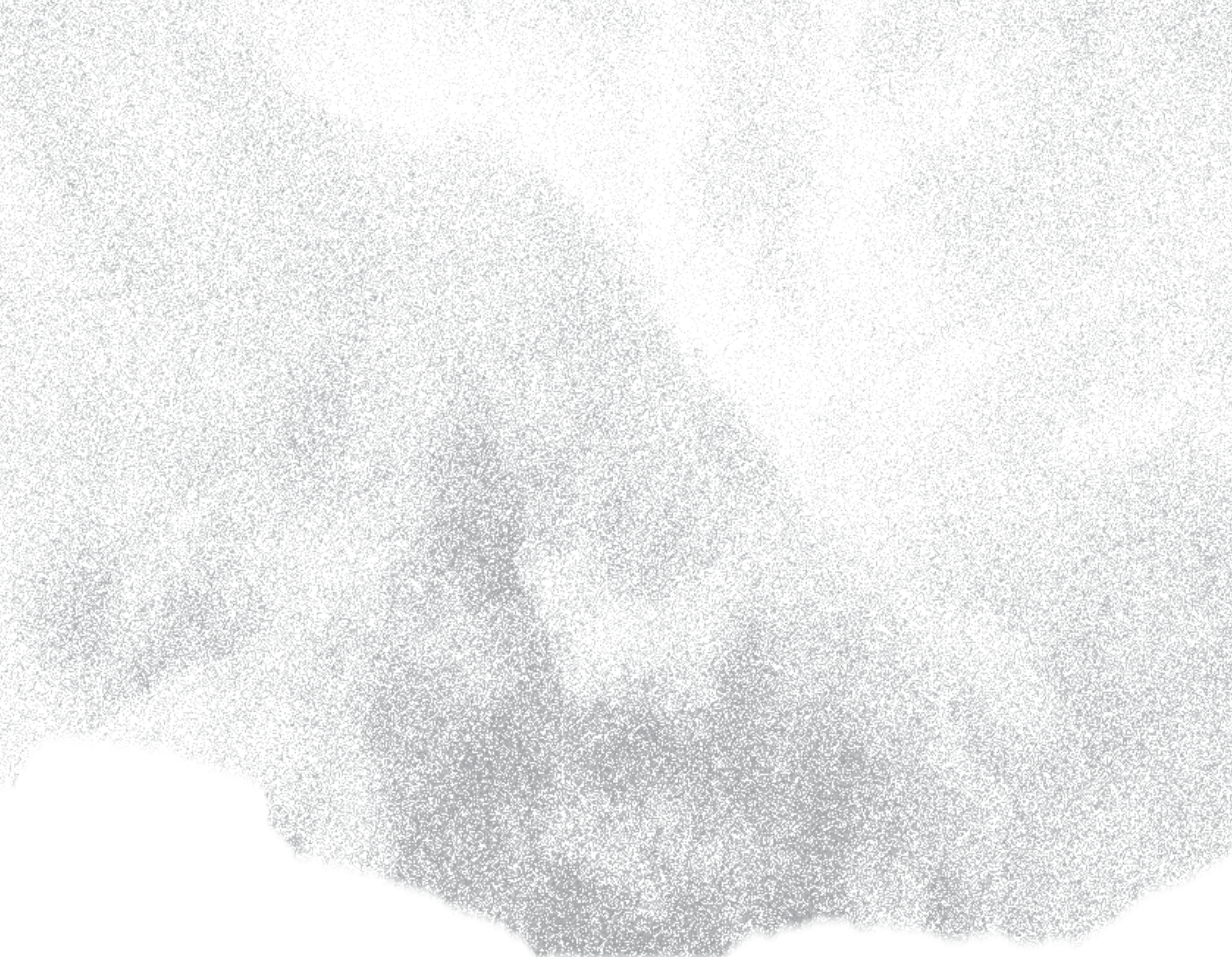
A Global Climate Event
Climate *into*, *inside*, and *out of* war

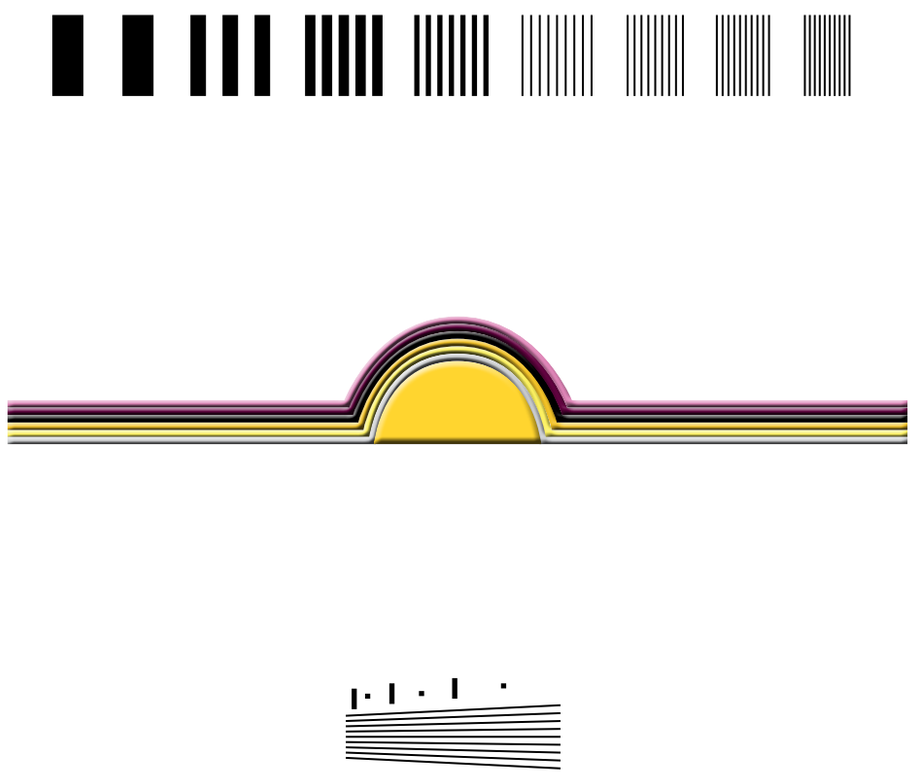
Abstract.

How to write the *climate war*? How to find unity in something that consists of disparate, heterogenous elements, stratifications, and invisibilities? How to write the climate disaster when it is not only situated in the past but, in addition, in the present and the future?

In this essay, I build the idea of the *climate war* as a supersaga by using the facets *into*, *inside*, and *out of* war.

Rains of Fine Sand





Prologue

Rains of fine sand.

Let's start the supersaga in 1600, in the western Andes, Peru.

The earth has been shaking for a while now. Tremors and earthquakes seem to never end. The tectonic movements cause tearing and flooding. The ground is unstable under the population's feet.

The trembling marks the final years of an eventful century: Inca emperor Atahualpa has been tricked and captured by the Spanish, and the subsequent civil war marks the defeat of the Inca Empire.[1] The defeat brings Catholic missionaries to the trembling region now known as Peru. Their missions are triggered by the 1494 Treaty of Tordesillas,[2] which divided between Portugal and Spain all lands regarded as newly discovered. This was done simply by drawing a vertical line straight across the world map: the east side belonging to Spain, the west side to Portugal. This treaty is mediated by the charming but controversial Pope Alexander VI, under the condition that all the indigenous inhabitants of the newly conquered lands, either east or west of the demarcation line, will be Catholic. In order to spread Catholicism, several missionaries sail towards South America, one of whom is the friar Antonio Vázquez de Espinosa, who arrives in Peru in 1600.

The earth is round. That is what Antonio Vázquez de Espinosa notes in his log. One can trace the curve the sun makes over it from east to west. While traveling to the Americas, he observes that, where only sky and water can be seen, the horizon curves. "The earth," he writes, "sustains and holds everything itself."[3]

That *the earth is round*, poses a problem for the Treaty of Tordesillas, as only one line had been placed on the map. The further "east"

1 Sabine G. MacCormack, '"The Heart Has Its Reasons': Predicaments of Missionary Christianity in Early Colonial Peru," *The Hispanic American Historical Review*, vol. 65, no. 3 (1985), pp. 443–66.

2 Edward Heawood, "The World Map before and after Magellan's Voyage," *The Geographical Journal*, vol. 57, no. 6 (1921), pp. 431–42.

3 Antonio Vázquez de Espinosa, *Compendio y Descripción de las Indias Occidentale*s [1630], trans. Charles Upson Clark, in the *Smithsonian Miscellaneous Collections*, vol. 108. Washington, DC: Smithsonian Institution, 1948, p. 5.

one travels, the more likely it is one ultimately ends up in the "west" and vice versa. This was solved in 1529 with the simple addition of a second line on the other side of the map.

Over this round earth, Vázquez de Espinosa travels to the city of Arequipa. There, he finds a city shaken to its core, the inhabitants speaking of an ominous event: the sudden appearance of black clouds, followed by rains of fine sand, coinciding with thunderclaps and thunderbolts. Afterwards, the city is cloaked in darkness for days.

Now, Arequipa is in disarray. People are wailing for their sins, offering penance, giving away all their belongings. While the Catholic church organizes sermons and processions, Vázquez de Espinosa notes that the indigenous population turn to soothsayers and wizards for consolation, further complicating his Christian mission.

> *It is stated as a certainty that many of the Indians talked with the Devil; the padres who instructed them, weaned them [...] from such wickedness; but they were such great sorcerers that they said the Devil had told them that the volcano was about to erupt, and as it came to pass later, they say that five of them hanged themselves at the instigation of the Evil One.*[4]

Red-hot pumice stone.

The days without sunlight had been caused by the outburst of the Huaynaputina (Wajnapu'tina) volcano that had just killed about 1,500 people. Arequipa had found itself in the initial fallout zone of the volcano.[5] Locals reported that the Rio de Tambo—the river which runs near the volcano—was filled with red-hot pumice stone that burned up all the farms and cattle in its vicinity. When it carried the lava out to the sea, it roasted all the fish and carried them to shore.[6]

When Vázquez de Espinosa travels over the surrounding plains, he sees the devastation of the eruption himself:

4 Ibid., p. 441.

5 Kenneth Verosub and Jake Lippman, "Global Impacts of the 1600 Eruption of Peru's Huaynaputina Volcano," *Eos Transactions, American Geophysical Union*, vol. 89, no. 15 (2008), pp. 141–48, here p. 143.

6 Vázquez de Espinosa, *Compendio y Descripción de las Indias Occidentales*, p. 442.

an uninhabitable sandy desert and ashes, in which lie great numbers of dead oxen, cows, bulls, horses, mules, sheep, and goats, dried up in the ashes and the sand; [...] the sun is so intense and there is no water, so that they gave out and perished.[7]

Solar insolation reduction.

On February 16, 1600, the 4,850-meter-high volcano has been erupting for about twelve to nineteen hours. The initial fallout is regional: Its ashes keep raining until March 6, and the first clear air surrounding Huaynaputina is estimated to have arrived around April 2, 1600. The Huaynaputina outburst is one of the largest volcanic eruptions on record; the volcanic ash has a lobe of 95,000 square kilometers.[8] The captain's log of a vessel 1,000 kilometers off the Peruvian coast notes the ash-filled rain. Centuries later, the ashes will be detected in the ice core of Antarctica.[9]

But the Huaynaputina doesn't just create a rain of ashes, it creates a veil of sun-reflecting sulfate aerosols, which spreads all over the round earth. This blanket of particles blocks out significant amounts of sunlight, which causes solar insolation reduction. The lack of sunlight then leads to what is known as a volcanic winter: an unusually early, extremely cold winter.

The timing of the Huaynaputina outburst is unfortunate; the years 1300 to 1850 are popularly dubbed the "Little Ice Age" due to a prolonged period of regional cooling.[10] To add insult to injury, the abrupt global cooling in the wake of the volcanic eruption results in the lowest temperatures of the era. The outburst of the Huaynaputina becomes a global climate event.

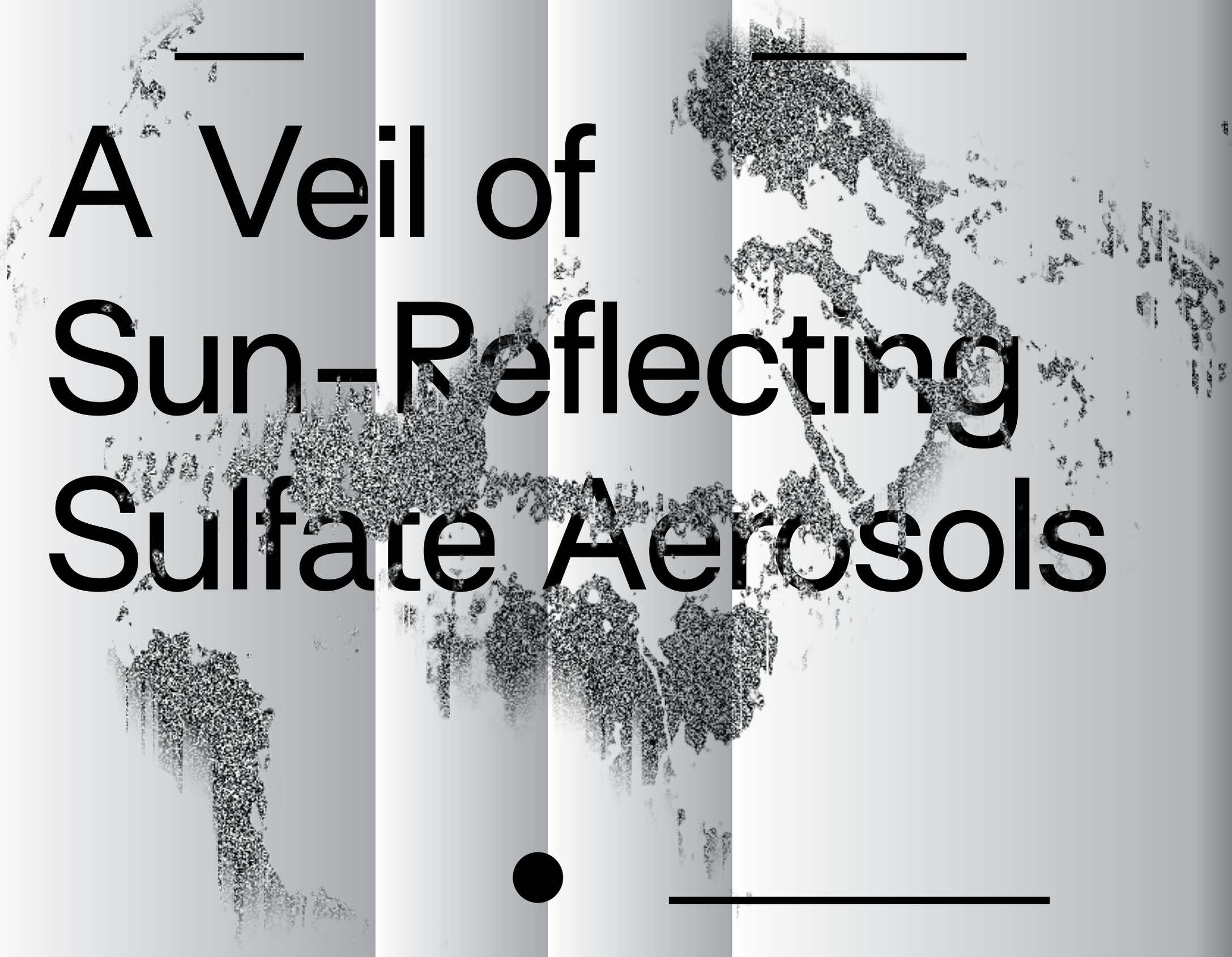
Three absences of summer.

The earth is round, the outburst of one volcano creates the same shift in weather all around the globe, from the dead oxen on the surrounding

7 Ibid.
8 Verosub and Lippman, "Global Impacts of the 1600 Eruption of Peru's Huaynaputina Volcano," p. 144.
9 Alexandra Witze, "The Volcano that Changed the World: Eruption in 1600 may have plunged the globe into cold climate chaos," *Nature News* (April 11, 2008), https://www.nature.com/articles/news.2008.747#article-info, accessed January 7, 2022.
10 Ibid.

plains, to all the other continents. Global temperatures in the years 1601 to 1603 reach extreme lows. In Peru, wine production is severely affected. The Pacific Ocean winds rage particularly strong. The Americas, Europe, and Asia all battle with failed harvests. Then, in spring, unprecedented amounts of snowmelt causes severe flooding in Eurasia.[11] But the climate event doesn't just bring the cold. In several regions in China, local gazetteers note particularly cold winters followed by abnormally hot springs.[12] Both Korea and China struggle with epidemics, such as the plague. Some European countries see *three subsequent absences of summer*.

11 Verosub and Lippman, "Global Impacts of the 1600 Eruption of Peru's Huaynaputina Volcano," p. 142.
12 Ibid., p. 144.



A Veil of Sun-Reflecting Sulfate Aerosols

Three Absences of Summer

A Global Climate Event

Heat pockets from the Sahara.

At the moment, there are no absences of summer, the global climate event we are currently in is almost the mirror image of that of 1600. The 2021 IPCC report states that rising temperatures will see an increase in weather events.[13] *The earth sustains and holds everything itself.* In this case, typhoons, excessive rain, and heatwaves will cause flooding, fires, droughts, and other damage. Heat pockets from the Sahara will spread north over the curvature of the earth, jump over the Mediterranean Sea, and see Sicily reach a record temperature of 48.8 degrees Celsius.

Climate events are likely not to be singular, but will often coincide with, and heighten one another. Climate change is now widely considered a global security risk: not only do weather events threaten peoples' lives directly, but climate shifts are also intricately tied to geopolitical conflict. *Climate and conflict are inseparable*. In this essay, I focus on the climate war as a supersaga.

The acceleration of climate change will increase conflict all over the earth-ball: it endangers ecologies, creates food scarcity, threatens human lives, and increases disease—the US military even defined climate change as a "threat multiplier."[14] Furthermore, any shift in climate creates a cultural crisis.

Supersaga.

If climate and conflict have been closely intertwined in the past, they certainly are at present and will be in the future—this forms the *climate war supersaga*.

Futurist Velimir Khlebnikov created his personal idea of the supersaga:

> *A superstory, or supersaga, is made up out of independent sections, each with its own special god, its special faith, and its special rule.*

13 Valérie Masson-Delmotte et al. (eds), *IPCC, 2021: Climate Change 2021. The Physical Science Basis: Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge: Cambridge University Press, 2021, § B.2, B.3.

14 Michael Brzoska, "The securitization of climate change and the power of conceptions of security," *Sicherheit und Frieden / Security and Peace*, vol. 27, no. 3 (2009), pp. 137–45, here p. 140.

> *[...] It is carved from the varicolored blocks of the Word, each with its own different structure. Thus do we discover a new kind of operation in the realm of verbal art. Narrative is architecture composed of words; an architecture composed of narratives is a 'supersaga.'*[15]

The supersaga is a proposition for an all-encompassing narrative. Khlebnikov's supersaga might well offer a step toward envisioning our ecological collapse: a narrative that *has been* written, is currently *being written*, and *will be* written. It can help us to see all interrelations between climate and war as *climate war* and as *one war.* One war existing out of disparate sub-wars with different facets and different timeframes. The conceptualizing and writing of the climate war will create new possibilities for communication, as well as action and mediation.

The value in reporting the climate war as one war becomes clear in the example of the recent framing of the civil war in Syria: in 2015, several media outlets started making the connection between climate change and the civil war after a study concluded that droughts in 2006 were an important stressor in internal unrest.[16] This led to a wave of articles making the connection between climate change and future war, forewarning that, when it comes to climate and conflict, the Syrian refugee crisis is just the tip of the iceberg,[17] a narrative which, in social/popular media, transformed into the idea of a "refugee apocalypse."[18] However, multiple investigations were inconclusive as to whether the

15 Velimir Khlebnikov, "Azia Unbound: 'Zangezi'" [1920–22], in Ronald Vroon (ed.), *Collected Works of Velimir Khlebnikov, Volume II: Prose, Plays, and Supersagas 1885–1922*, trans. Paul Schmidt. Cambridge, MA: Harvard University Press, 1989, p. 331.

16 Colin P. Kelley et al., "Climate change in the Fertile Crescent and implications of the recent Syrian drought," *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, vol. 112, no. 11 (2015), pp. 3241–46, here p. 3241.

17 John Abraham, "Study finds that global warming exacerbates refugee crises," the *Guardian* (January 15, 2018), https://www.theguardian.com/environment/climate-consensus-97-per-cent/2018/jan/15/study-finds-that-global-warming-exacerbates-refugee-crises, accessed January 5, 2022.

18 Giovanni Bettini, "Climate Barbarians at the Gate? A critique of apocalyptic narratives on 'climate refugees,'" *Geoforum, vol. 45 (March 2013), pp. 63–72, here p. 63.*

droughts ignited the civil war, instead suggesting an infinitely more intricate cause.[19] This nuancing might have been too late to change the minds of the public: I have often heard people proclaim in private that the Syrian conflict was the first "climate war."

This framing of Syria shows an incapacity to grasp the character of the pending ecological disaster. Rather, these writers force it into a narrative framework built with conditions from the past. Either the climate war exists out of a clear causality, or it does not get written. In their perception, the climate war is a conflict caused by changes in a local climate. When the ambiguity of climate change does get addressed in reporting, it depicts climate change as a factor that is still up for debate: "Is climate change to blame for Australia's bushfires?";[20] "Why is it so hot, and is climate change to blame?";[21] "UK heatwave: Is climate change to blame?";[22] "Who is really to blame for climate change?";[23] "Earth is getting less shiny, and climate change could be to blame."[24] These BBC headlines still imply that the only possible connection between climate change and disaster is a direct causal one. Either climate change is *to blame*, or it is not a factor. Both implications show an incapability to narrate a disaster which is infinitely more complex.

19 Jan Selby et al., "Climate change and the Syrian civil war revisited," *Political Geography*, vol. 60 (September 2017), pp. 232–44, here p. 241.
20 "Is climate change to blame for Australia's bushfires?," *BBC News* (November 11, 2019), https://www.bbc.com/news/world-australia-50341210, accessed January 5, 2022.
21 Darren Bett, "Why is it so hot and is climate change to blame?" [video], *BBC News* (July 24, 2019), https://www.bbc.com/news/av/world-49093455, accessed January 5, 2022.
22 Gabriel Gatehouse, "UK Heatwave: Is climate change to blame?" [video], YouTube (*BBC Newsnight*, July 25, 2019), youtube.com/watch?v=cvjbXYdh8x0, accessed January 5, 2022.
23 Jocelyn Timperley, "Who is really to blame for climate change?," *BBC Future* (June 19, 2020), https://www.bbc.com/future/article/20200618-climate-change-who-is-to-blame-and-why-does-it-matter, accessed January 5, 2022.
24 Thom Waite, "Earth is getting less shiny, and climate change could be to blame," *Dazed* (October 3, 2021), https://www.dazeddigital.com/science-tech/article/54378/1/earth-is-getting-less-shiny-and-climate-change-could-be-to-blame-space, accessed January 7, 2022.

But how does one portray the true climate war? Obviously, there is a degree of impossibility in conceptualizing a disaster of this magnitude.[25] The disaster is too large to grasp, consists of many invisibilities, and it changes its own conditions over time.

Net of numbers over the globe.

In *The Writing of the Disaster*, Maurice Blanchot writes that we conceive of the disaster as past and are unable to situate it in the future:

> *To think the disaster [...] is to have no longer any future in which to think it. [...] We are passive with respect to the disaster, but the disaster is perhaps passivity, and thus always past, even in the past, out of date.*[26]

Even if we formulate the disaster in the future, the disaster destroys the future in which to think it. With its destruction, it brings new conditions that can only be fathomed from the moment the disaster actually happens. According to this logic, the climate disaster cannot be thought as an *is*, it can only be thought as a *was* as well as an infinite *might-be*.[27] This "might-be" is filled with unknowns, contingencies, and invisibilities. Too many dynamic elements are at play and developing at rapid speed. It is not clear where the elements will coincide, catalyze, or cause local sub-disasters.

When it comes to the global response to climate change, we seem to be describing the rubble of individual sub-disasters when they have passed, rather than building "an architecture composed of narratives."

> *Planets of Earth! Forward, march!*
> *Just suppose somebody throws*
> *a net of numbers over the globe,*
> *does that mean he raises our minds?*
> *No, it means our mind is more alone.*[28]

25 Maurice Blanchot, *The Writing of the Disaster*, trans. Ann Smock. Lincoln, NE: University of Nebraska Press, 1980.
26 Ibid., pp. 1, 3.
27 Ibid., p. 1.
28 Velimir Khlebnikov, *Collected Works of Velimir Khlebnikov, Volume I: Collected Poems*, ed. Ronald Vroon, trans. Paul Schmidt. Cambridge, MA: Harvard University Press, 1989, p. 119.

Climate as a protagonist in war.

What is the value in writing the climate war as one thing when it exists out of so many heterogenous elements? The wrongful writing of the disaster can lead to simplified depictions that then become liabilities in their own right. This can lead to the social amplification of risk.[29] For instance, the idea of the refugee apocalypse can lead to increased xenophobia and subsequent violence.[30] The risk of escalating unstable narratives makes the concise formulating of what *was* and *might-be* quite crucial. The reporting of climate-war related sub-disasters as isolated events paints a picture of climate change as a mere Frankenstein's monster on the loose—popping up, wreaking havoc, and subsequently disappearing again—rather than framing climate change as a state the world has been in and will be in for the foreseeable future.

If Syria had been a climate war, it certainly wouldn't have been the first: climate has always been, and will always be, intertwined with war. This is the framework from which reporting should depart. In situating the scattered, complex interrelations of *climate* in *conflict*, the building blocks of the supersaga are uncovered.

Can a supersaga be used as a method to write the real climate war? And what exactly would this supersaga be? In this text, I will explore this question through three facets of climate and war, as seen through historical and contemporary cases:

- How climate shifts evoke war.
- Climate as a protagonist in war.
- War as a cause of climate/environmental change.

These three facets will form the backbone of the supersaga, in slogans: *into*, *inside*, and *out of* war. By navigating different books which pray to different gods, I will demonstrate that the construction of a dialogue around climate and conflict can reach a form of unity. One story can consist of heterogenous, disparate, and invisible elements.

> *[...] I tell you the future is coming,*
> *and on it come my superhuman dreams.*[31]

29 Roger E. Kasperson et al., "The Social Amplification of Risk: A conceptual framework," *Risk Analysis, vol. 8, no. 2* (1988), pp. 177–87, here p. 177.

30 Bettini, "Climate Barbarians at the Gate?," p. 64.

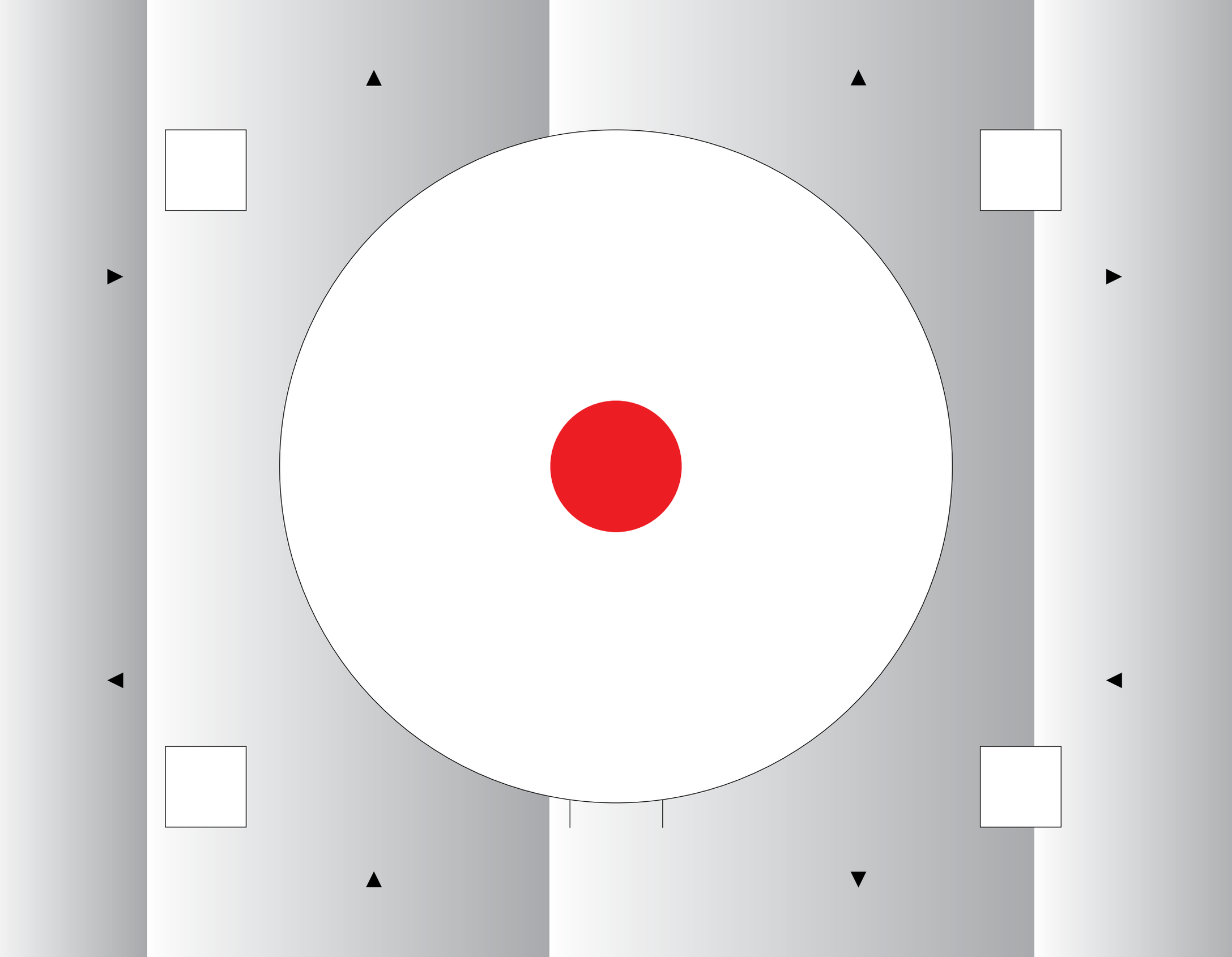
31 Khlebnikov, "Incantation by the Plural," in Vroon (ed.), *Collected Works of Velimir Khlebnikov, Volume II*, p. 365.

In this text, I will use the terms climate and weather in a specialized way. By weather, I mean unique, daily local atmospheric conditions. By climate, I designate annual weather-condition averages such as sunshine, humidity, and wind. When I use the word weather, I will use it for individual days, and when I use climate, I will speak of annual numerological averages.

Climate is a local phenomenon and therefore it is inseparable from local geological conditions or features in the landscape. Proximity to water, elevation, geological location, and current vegetation all influence the local climate, just as the climate influences vegetation in return. For instance, urban areas with large surfaces of concrete and numerous tall buildings create urban heat pockets—a significant rise in temperature and dryness within a small area—whereas the same area containing a forest can be at least three degrees cooler.[32] In this text, I will often refer to climate and landscape as interwoven.

32 Lilly Rose Amirtham, "Urbanization and its Impact on Urban Heat Island Intensity in Chennai Metropolitan Area, India," *Indian Journal of Science and Technology*, vol. 9, no. 5 (2016), pp. 1–8, here p. 2.

Climate & Weather



Into War

Ten weeks of rain.

The saga continues from the fallout of the Peruvian volcanic eruption in 1600. As the veil of sun-reflecting sulfate aerosols increasingly covers the curvature of the globe, other countries find themselves in a changed environment. Although Vázquez de Espinosa writes that "it is well known and agreed that the world is round,"[33] it is likely that, in the Czardom of Russia in 1600, no one had heard of the Huaynaputina volcano located some 10,000 kilometers away. Furthermore, no one is aware that they are about to become part of a global climate event.

Russia has other worries; the last ruler in the infamous Rurik dynasty, Czar Fyodor Ivanovich, died in 1598. As the mentally weak son of the infamous Ivan Grozny (Ivan the Terrible), he had been Czar in name only, with Boris Godunov actually reigning as regent. Even though Godunov is not a Rurik, he ascends to the throne of the unsteady young Czardom officially after Fyodor's death in 1598.

In his first year in power, the blanket of soot particles from Peru reaches Russia, and the solar insular reduction devastates Russia's agriculture. The country experiences summers with ten weeks of rain, followed by early frosts in the fall.[34] Subsequently, three consecutive harvests fail. It is the lowest point in an era already known as the Time of Troubles (**Смутное время**)—a three-year-long famine.[35]

The young, unsettled Czardom begins to fall apart; many landowners release their serfs to avoid the responsibility of feeding them. The freed people turn into hungry mobs, conducting robberies on main roads.[36] People seek help in Moscow, where dogs, cats, horses, and even manure are eaten; there are accounts of cannibalism. Climate

33 Vázquez de Espinosa, *Compendio y Descripción de las Indias Occidentales*, p. 5.

34 Verosub and Lippman, "Global Impacts of the 1600 Eruption of Peru's Huaynaputina Volcano."

35 Jie Fei et al., "1600 AD Huaynaputina Eruption (Peru), Abrupt Cooling, and Epidemics in China and Korea," *Advances in Meteorology, vol. 2016 (December 2016), pp. 618–29.*

36 Chester Dunning, "Crisis, Conjuncture, and the Causes of the Time of Troubles," *Harvard Ukrainian Studies*, vol. 19 (1995), pp. 97–119, here p. 101.

events often lead to the outbreak of epidemics: in the case of Russia, cholera breaks out. The weary population speculate on where grain reserves might still be held and attack several buildings.[37]

Chorus
Please, in the name of Christ,
do save us from hunger!
Tsar—Father—
in the name of the Savior!
[...]
Your people cry—
we're hungry—
We are hungry!
Give us bread to eat!
Tsar, give us bread to eat!
We are hungry—
Tsar—give us bread to eat!
In the name of Lord Jesus.[38]

When the food doesn't come, the people speculate on the cause of this disaster. Is Godunov not a legitimate ruler? He is not a Rurik... Is this a punishment from God for his illegitimacy?[39] Their speculations mirror the sentiments of the people on the other side of the globe. The weather event is a punishment, but for what? The global climate event ignites questions of the legitimacy of new powers, questions which often lead us *into war*.

Godunov, in vain, tries to forbid the overpricing of bread, distributes money, and sets up impromptu building projects to provide

37 O. A. Tufanova, "Image of the Famine of 1601–1603: Russian and Foreign Sources about the Time of Troubles," *Bulletin of Slavic Cultures, vol. 24, no. 2 (2012), pp. 77–83, here p. 81.*

38 From the opera by Modest Mussorgsky, *Boris Godunov* [1869–72], Act 4, Scene I. See *Boris Godunov: Opera in Four Acts, based on Pushkin. English text by John Gutman*. New York: Fred Pullman, Inc., 1953, p. 28; digitized (2013), https://archive.org/details/borisgodunovopera00muss, accessed February 16, 2022, p. 28.

39 Chester Dunning, "Who Was Tsar Dmitrii?," *Slavic Review*, vol. 60, no. 4 (2001), pp. 705–29, here 722.

labor. Nevertheless, unrest is not to be tamed. Godunov is in a situation he cannot win: He cannot blame the weather, because the weather is blamed on him. Had the BBC been reporting at this time, it would write the headline: "Is Boris Godunov to blame for the failed harvests?" He cannot blame the Huaynaputina, as he is oblivious to its existence. His options for mediation are slim. The cultural manner in which the climate event gets framed makes Godunov vulnerable as a ruler.

Now Russia is exposed enough for a potential coup. Amidst this tension, a man enters the stage who claims to be Dmitry Ivanovich, the son Ivan Grozny had presumedly killed. If this was the real Ivanovich, it would mean that there is a Rurik to ascend the throne as a legitimate ruler, approved by God. Backed by the Polish king and the Catholic church, False Dmitry goes to war.

> *An outlaw,*
> *thief,*
> *and fugitive from prison,*
> *with mutinous intent*
> *has gathered to his ranks*
> *a crowd of hunger-ridden hirelings,*
> *and dares pretend to be*
> *the late Tsarevich,*
> *the rightful Tsar of Russia.*[40]

Godunov "suddenly" dies in 1605; False Dmitry heads to Moscow with an army of about 3,500 men. A swift sequence of events takes place: The newly appointed Czar Feodor II and his mother are killed, Ivan Grozny's widow confirms that this strange man is her son, and finally, False Dmitry I is crowned Czar of Russia. He is the only imposter to ever have successfully secured the Russian crown.[41]

Invisible weather.

Although located on the opposite side of the sphere, the people in the Viceroyalty of Peru and Russians are part of the same climate event.

40 *Boris Godunov: Opera in Four Acts,* Act 4, Scene II, p. 29.

41 Lars T. Lih, *Bread and Authority in Russia, 1914–1921.* Berkeley, CA: University of California Press, 1990, p. 3.

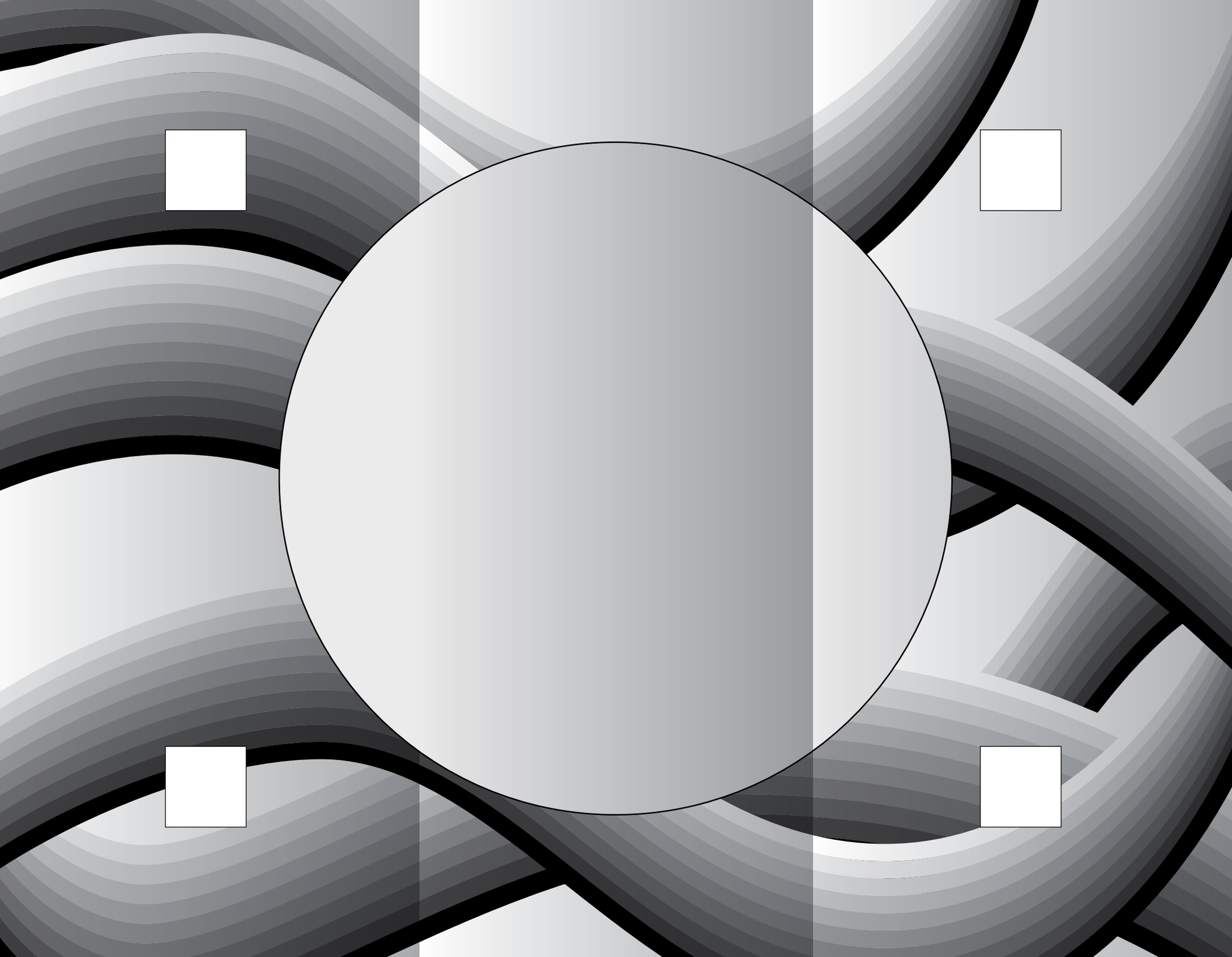
Both populations narrate the event in a similar way. The event is framed as a punishment from the gods, which should lead to introspection: Who is in power? Do they have the legitimacy to hold this power?

Even though the climate event leads to famine in Russia, the narration of the conflict shifts to power relations, social unrest, and economic disadvantages, rather than noting that the weather "has been weird."[42] The fact that the weather caused the harvests to fail and created the food shortages gets overshadowed by the sociopolitical response to the crisis. For instance, the opera *Boris Godunov* by Mussorgsky never even mentions the cold, the rain, the snow, or the subsequent bad harvests. Climate events are so entangled with other sociopolitical layers that climate is often rendered invisible. There are potentially unending examples of climate shifts which lead *into* war, the stories of which have never been told.

42 Mike Hulme, "Weather-Worlds of the Anthropocene and the End of Climate," *Weber—The Contemporary West*, vol. 34, no. 1 (2018), https://www.mikehulme.org/wp-content/uploads/2017/11/2018-Hulme-in-Weber.pdf, accessed January 5, 2022, p. 2.


Volcanic
Winter

False Dmitry



Inside War

The ice cracked.

If one thinks of climate war in relation to Russia, the Time of Troubles is probably not the first example which comes to mind. It is easier to think of Napoleon and his soldiers battling the Russian winter in 1812, as much as the Russians themselves, dragging their bodies through the snow. This is part of *climate as a protagonist in war,* the second facet of the supersaga. In any type of warfare which includes terrain, a body of water, or air, climate is an actor.

> *'Come on down here!' he shouted, bounding over the ice as it cracked under him. 'Come on down here [...]. The ice is good! ...' The ice was good, but it sank and cracked, and it was obviously going to give way under his weight alone, never mind a cannon or a crowd of people. [...]*
> *Crowds of soldiers began running down on to the frozen surface. The ice cracked under one of the leading soldiers [...]. He tried to drag himself out but he was in waist-deep. The nearest soldiers tried to stop, the cannon driver reigned in his horse, but still the shouts came from behind: 'Get down on the ice. Don't stop! Go on! Go on!' Screams of horror came from the crowd.*[43]

But the role of climate *inside war* is not just a mere "battling of the elements." Not only is climate an obstacle or an advantage in warfare; the way people fight their wars is closely interrelated with the regional climate. This is related to peoples' cultural entanglement to their climate: climate influences cultural celebrations, religion, food, clothing, vocabulary, and ultimately the manner of warfare.[44] Language is full of references to the weather, for instance in pleasantries, proverbs, and news stories. People identify with the climate they grow up in, so much so, that the "normal" daily environment becomes almost invisible. This is why a shift in climate is always a cultural crisis in its own right. The South Americans and Russians saw the climate event

43 Leo Tolstoy, *War and Peace* [1868], trans. Anthony Briggs. London: Penguin Classics, 2007, p. 309.

44 Mike Hulme, *Weathered: Cultures of Climate.* Washington, DC: SAGE Publications, 2016, part II.

as something happening *to* them, because the event differed from the known climate they were living *in*.

There is a certain degree of environmental determinism in the way that climate influences warfare. A good example, and the next book in the supersaga, is the two battles fought between the Mongols and the Japanese in 1274 and 1281. Here, the environmentally determinant manner of warfare from both sides creates an interesting asymmetrical confrontation, in which, ultimately, the weather deals the decisive blow.

A handful of sand.

It's 1274, and the Japanese have quite a good natural defense system: high mountains with steep falling rivers, sheltered behind a shield of rough seas. *Japan contains and sustains everything within itself*. This is why the Japanese do not have a particularly strong naval force. It is the time of the Kamakura shogunate, a relatively peaceful one-and-a-half-century period. Before the Kamakura, warfare had mostly comprised internal conflicts between clans. The samurai warriors are well trained in navigating through the tall mountains. They work with a unique honor system, consisting of elaborate fighting codes. Within this code, one-to-one (*ikki-uchi*) combat is viewed as the most honorable form of fighting.[45]

The universe is already significantly bigger for the Mongols. The Mongol army has been a highly efficient operation ever since Temüjin (Genghis Khan) initially brought it together at the beginning of the thirteenth century by conquering large swathes of the curvature of Eurasia. The Mongol's warfare strategy is highly conditioned by the steppe's landscape and climate. Open pastures as far as the eye can see afford a nomadic lifestyle, a breeding ground for the Mongolian small horses, and training grounds for the army. The Mongols are able to encircle the enemy in plain sight and at high speed. This lifestyle directly leads to a nomadic army, which brings a fascinating type of warfare: the Mongols hardly settle, the main goal always being to find good pastures, conquer neighboring settlements, insert a system of taxation and loyalty, and move on.

45 George Cameron Hurst, "Death, Honor, and Loyalty: The Bushidō Ideal," *Philosophy East and West, vol. 40, no. 4 (1990), pp. 511–27, here p. 517.*

The nomadic army confuses our traditional interpretation of empire. Rather than building settlements, the Mongols often destroy towns in order to create more space for grasslands—grasslands being the type of landscape they have a cultural loving relationship with.[46] By this system, the Mongols cannot boast great cities to demonstrate power or wealth; their wealth is an unobstructed view over unending pastures until they disappear over the horizon. This contributes to the frequently gross underestimation of the Mongols' abilities by their enemies.

> *In the early 13th century, Wanyan Yongji, mighty emperor of the Jin, sent a message to an upstart warlord who had had the temerity to invade his territory. 'Our empire is as vast as the sea,' it read. 'Yours is but a handful of sand. How can we fear you?'*[47]

Yongji will regret not fearing them. When taking over the Chinese imperial palaces, the Mongols plant steppe grass to surround them, a reminder of home.[48]

Kamikaze.

Two armies, culturally shaped by their climate: so how does the army of a handful of sand attack a body of land encircled by water?

In 1274, Kublai Khan, Genghis Khan's grandson, tries. He dispatches from Goryeo (Korea) to Japan with approximately 30,000 men.[49] Both the Japanese and the Mongol army struggle with the unfamiliarity of new forms of warfare. The nomadic army initially has difficulty creating a system of provisions for the ships. But then, when the first Mongol ships make landfall, the Japanese cannot comprehend the Mongol manner of warfare.

46 Charles Halperin, "Russia in The Mongol Empire in Comparative Perspective," *Harvard Journal of Asiatic Studies, vol. 43, no. 1 (1983), pp. 239–61, here p. 250.*

47 Spencer Mizen, "Genghis Khan: The Mongol warlord who almost conquered the world," *History Extra* (November 2018), https://www.historyextra.com/period/medieval/genghis-khan-mongol-warlord-conquered-world-china-medieval/, accessed January 6, 2022.

48 Halperin, "Russia in The Mongol Empire in Comparative Perspective," p. 253.

49 Ibid.

In the samurai way of warfare, warriors step forward and announce themselves with an outline of their name, ancestry, and accomplishments.[50]

> *[T]he Mongols disembarked from their ships, mounted their horses, raised their banners and began the attack. The grandson of the Japanese commander-in-chief Shoni Nyudo Sukeyoshi, who was barely 12 or 13 years old, loosed a signaling arrow with a small head [to start the battle], but all the Mongols just burst out laughing.*[51]

The Mongols do not care about ceremony and directly defeat a large number of Japanese warriors. Suddenly, another actor joins the stage; just as more ships are about to lay anchor at Hakata Bay, a typhoon strikes.

Typhoons are quite a common phenomenon in Japan—about ten typhoons approach Japan each year, although not all reach land.[52] The Japanese know this natural phenomenon well, but the typhoon deals a devastating blow to the Mongol forces.

In 1281, Kublai attacks again, this time departing with a larger fleet toward the same Hakata Bay. Now the Japanese are better prepared for the Mongols and so is the wind; an even bigger typhoon hits which wrecks the Mongol fleet. According to sources, half the Mongol warriors drown while the ones who survive in the water are killed by the samurai once ashore.[53]

Twice the Mongols venture out to fight a war in an unknown environment. Twice they get defeated by a weather event. But to grasp why this attack failed, one has to know about the strategy of the nomadic army and the cultural relationship of the Mongols with the steppes.

50 Michael Smathers, "The Mongol Empire and Divine Winds: The Mongol invasion of Japan," *The Collector* (July 11, 2021), https://www.thecollector.com/the-mongol-empire-and-divine-winds-the-mongol-invasion-of-japan/, accessed January 7, 2022.

51 Excerpt from the *Hachiman Gudokun*, quoted from Stephen Turnbull, *The Mongol Invasions of Japan: 1274 and 1281*. London: Bloomsbury, 2013, p. 41.

52 "Typhoons in Japan," *Facts and Details* (updated January 2013), https://factsanddetails.com/japan/cat26/sub160/item856.html, accessed January 7, 2022.

53 Turnbull, *The Mongol Invasions of Japan*, p. 67.

The Mongols are not merely battling the elements, they are stepping into an environment they are not culturally conditioned to fight in. At the same time, the Japanese are not adept at fighting strategies of warfare outside of the bushidō system.

The Japanese lovingly call both typhoons *Kamikaze*, which means divine wind. Where the people in Peru and the Russians see the weather event as a punishment from the gods, the Japanese see the typhoon as a divine gift.

> *Heaven grew angry, and the ocean's*
> *Billows were in tempest tossed;*
> *They who came to work us evil,*
> *Thousands of the Mongol host*
> *Sank and perished in the seaweed,*
> *Of that horde survived but three*
> *Swift the sky was clear, and moonbeams*
> *Shone upon the Ghenkai Sea.*[54]

More than six centuries later, when the universe has expanded for the Japanese, the term is used for suicide pilots who deliberately crash their planes into enemy ships, mimicking the vortex of the typhoon. The suicide pilots uphold codes similar to the samurai and often carry a samurai sword on board.[55] The divine wind becomes culturally reintegrated as a devastating killing strategy.

The disastrous attempt to conquer Japan puts an end to Kublai Khan's naval aspirations. He returns to the wide-open pastures that he knows so well.

Cancel the weather.

Kublai Khan would have significantly benefited from a weather report, forewarning of the typhoons. He ventured into a new, subtropical climate—a challenge in its own right—and the additional two weather

54 Excerpt from the Japanese song "The Mongol Invasion of Japan," quoted from Grant Rhode, *Eurasian Maritime History Case study: Northeast Asia Thirteenth Century. Mongol Invasions of Northeast Asia: Korea and Japan* (Study Guide). Boston, MA: Boston University, 2020, p. 36.

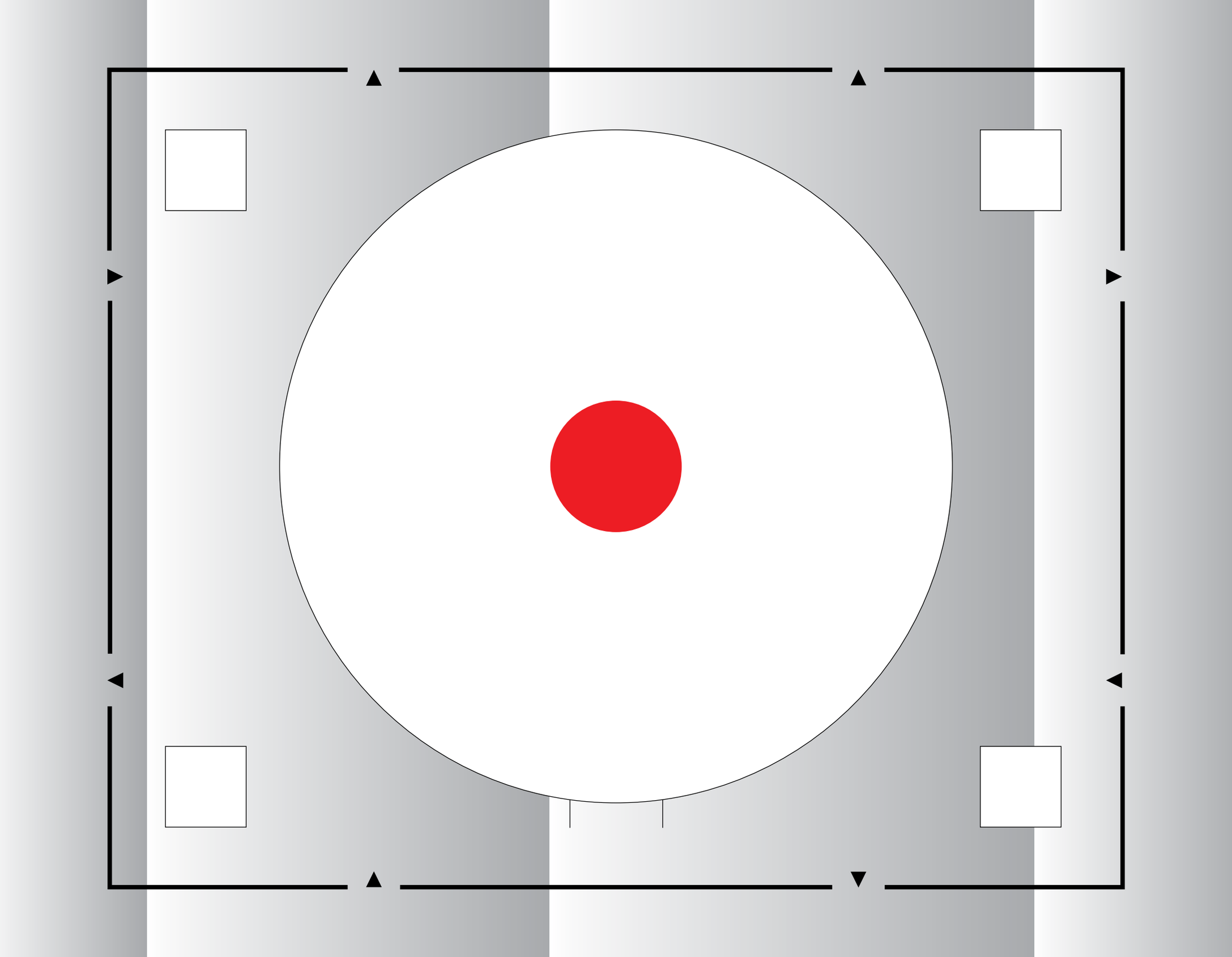
55 Syohgo Hattori, "Kamikaze: Japan's Glorious Failure," *Air Power History*, vol. 43, no. 1 (1996), pp. 14–27, here p. 16.

events were bad luck. Climate, *as a protagonist in warfare*, is so significant that the weather report becomes of great strategic importance and is often regarded as classified information. For instance, when the Nazi's took over the Netherlands in 1940, they forbade the publication of weather reports for the length of the entire occupation.[56] For the whole five years, publicly reporting the weather was forbidden, as the information was considered potentially beneficial for British air force pilots. In the wake of increasing conflict due to climate change, a future overlord could conceivably attempt to cancel the weather all together.

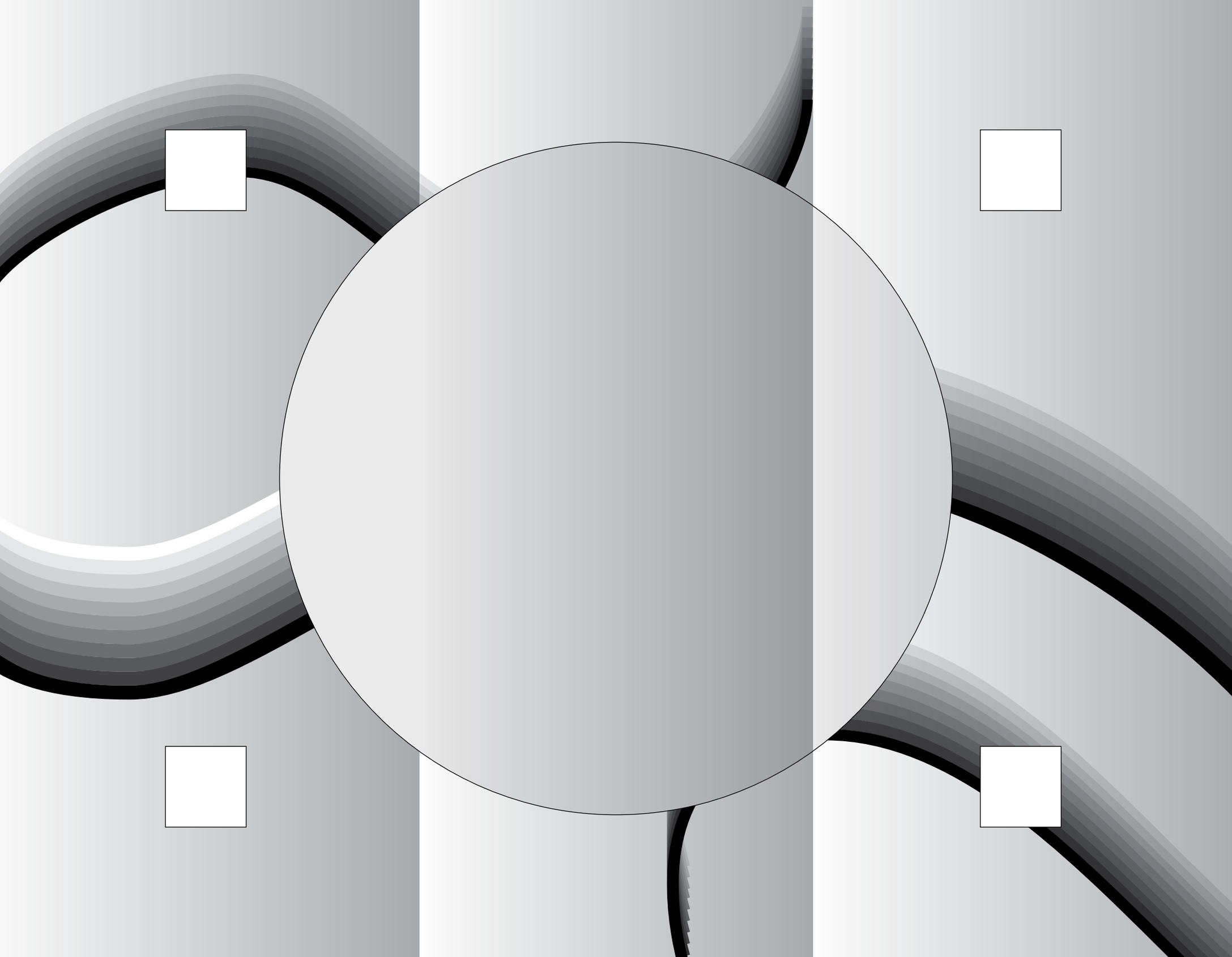
Books, articles, and other narrativizations on wars often forget to mention climate as a factor in war, instead only mentioning the weather event. But the Mongols and the Japanese show that *inside* terrain-based warfare, climate is always a multidimensional actor. It determines the culture and type of warfare as well as being inspiring for strategies.

When it comes to future reporting on climate change and war, failing to see climate as a protagonist will mean overlooking many potential risks and outcomes.

56 "KNMI in oorlogstijd," *KNMI News (April 30, 2018)*, https://www.knmi.nl/over-het-knmi/nieuws/knmi-in-oorlogstijd, accessed January 5, 2022.



Kamikaze



Out Of War

Ten million degrees Celsius.

Aside from causing conflict, and as well as being a multidimensional character within conflict, the climate often changes as a result of war.

The earth is round, and—as the Mongols knew—wars can be fought all over its curvature. The Second World War especially shows that the effects of climate *out of war* can be immediate. In the era of the Mongol Siege of Japan, when the scales of weather change were smaller, the environmental consequences of war were minimal. Even though the strategies used then, such as scorched earth, had been used since the Scythians in 600 BCE,[57] the environmental effect of this was likely local; removing trees, grain-fields, and rerouting rivers can lead to a temperature rise comparable to urban heat pockets. But around the time that the Kamikaze pilots are crashing their planes, this has changed significantly.

In 1945, the US rebuttal to the Japanese Kamikaze force is a weather event in its own right. Where the Kamikaze crash and destroy warships, the Americans destroy cities. In the moment Fat Man and Little Boy are dropped on Nagasaki and Hiroshima the bombs start a process of thermal radiation. Everything gets burned within the hypocenter: Temperatures reach ten million degrees Celsius, then fireballs and shockwaves appear, followed by a crushing wind. This combination of elements destroys everything in the fallout zone.[58] Then the city is cloaked in darkness; a veil of black smoke covers the hypocenter as well as its surroundings. The soot particles which start spreading over the earth's curvature block out the sun and create a drop in both regional and global temperatures.[59] The eruption of Little Boy echoes that of Huaynaputina in 1600.

57 Herodotus and Francis R. B. Godolphin, "Herodotus: On the Scythians," *The Metropolitan Museum of Art Bulletin*, vol. 32, no. 5 (1973), pp. 129–49, here p. 146.

58 Simon Fung, "Temperature of a Nuclear Explosion," *The Physics Factbook: An Encyclopedia of Scientific Essays* (1999), https://hypertextbook.com/facts/1999/SimonFung.shtml, accessed January 7, 2022.

59 Alexandra Witze, "How a small nuclear war would transform the planet," *Nature*, vol. 579, no. 7800 (2020), pp. 485–87, here p. 485.

Recent studies estimate that a nuclear war could cause a drop in global temperatures of five degrees Celsius, bringing the earth back to the temperatures of the Little Ice Age.

The people that survive a nuclear bomb get displaced within their own environment. Buildings, trees, biodiversity—all wiped out.

That which made the environment home is no longer there. In Hiroshima, the population outside the hypocenter fear that nothing will grow in the wake of Little Boy. In the following spring, cherry blossoms pop up on the seemingly dead trees—it's a miracle. It is a glimmer of hope that "home" could return to its rightful place. A change in the environment can feel like an on-site displacement.

> *He alone refused to submit to the charms of spring; he would not countenance to the charms of spring. [...]*
> *'Springtime, love and happiness!' this tree seemed to be saying. 'Aren't you fed up with it all, this stupid, senseless sham? It never changes, the same old trick! There is no springtime, sunshine or happiness. Just look at those dead fir-trees sitting there where they've been brought down [...] and look at me sticking out broken, peeling fingers where-ever they care to grow [...].'*
> *[...] 'He's right that tree, a thousand times right,' mused the prince. 'Other people, young people, they can keep that sham going, but he and I know what life is. Our lives are over and done with!'*[60]

Endless feather grass.

The environmental impact of the nuclear bomb dropping is immediate, but mostly *climate change out of war* is a slow, intricate process. So much so, that it often becomes underreported.

This becomes apparent in the case of the desertification of Kalmykia, where the cause of the desert forming is ambiguous and closely tied to Stalinist deportations.

Now, the supersaga shifts to Kalmykia. The Kalmyk are descendants of the Mongols, and just like their ancestors—who grew steppe grass around the Chinese palaces—they have a lifelong cultural relationship with the steppe. Wide-open pastures afford a nomadic life-

60 Tolstoy, *War and Peace,* p. 455.

style on the steppes near the Caspian Sea. From this nomadic culture sprouts a new language, a new writing system, and a unique form of Buddhism.

Vázquez de Espinosa describes the earth as the center of the visible universe. From the steppes, with their lack of a visible center, the Kalmyk make their center the yurt. The yurt is a miniature version of the universe, with the hearth's axis as a miniature sun. In this axis, the fire is lit. A yurt's interior is the safe, cultivated world, while a wild, untamed landscape spans outside the yurt. This safe world makes the nomadic movements possible.

The yurt as miniature universe is a central line in the Kalmyk's history. It gets repeated in the traditional Kalmyk hat, which always boasts the *ulan zala,* a red pompom in the center that symbolizes the sun. The sun is the center of Kalmyk culture: jokes and proverbs address the sunshine and heat.[61] Similarly to the Japanese cherry blossoms, in the spring, red tulips pop up all over the steppe, and celebrations commence.

> *[...] endless steppes, where endless feather grass grows and, in the wind, resembles ocean waves, indescribable contemplation.*[62]

The Kalmyk infamously claim to be the only Buddhist republic of Europe. The yurt travels all over Europe from 1883 on, when the Kalmyk are presented in *Völkerschau* fairs in German, French, and English cities. These "human zoos" claim to display an authentic representation of the daily life of a "Tatar camp."[63] In the performance of authenticity, steppes have to be created upon which to erect yurts and demonstrate the nomadic lifestyle. Groups of Kalmyk tour Europe, not knowing that the authentic lifestyle they represent from back home will soon cease to exist.

61 Jasmijn Visser with S†ëfan Schäfer, *We, the Presidents of Planet Earth*. Berlin/Milan: Archive Books, forthcoming, 2022.

62 Excerpt from an interview with Kalmyk singer Diana Boskhomdzhieva, in ibid.

63 Stefanie Wolter, *Die Vermarktung des Fremden. Exotismus und die Anfänge des Massenkonsums*. Frankfurt: Campus, 2005, p. 119.

Floating down small rivers.

From 1921 on, red yurts show up in Kalmykia. They are Soviet propaganda yurts, *Ulan ger*,[64] to promote the New Economic Policy (NEP). The red yurts are deployed to get the Kalmyk out of their yurts: The nomadic lifestyle, the language, Buddhism, and the traditional clothing are suddenly forbidden. Men have to join collective farms, and temples are destroyed.[65] By leaving the yurt, the Kalmyk now lack a center of their universe. Forced collective farming is the first step in displacing the Kalmyk within their own environment. Their centuries-old grazing routes, which are defined by the season, get eliminated. Their knowledge becomes obsolete.

This displacement continues more literally, when, on December 28, 1943, the complete population of Kalmykia is deported during Operation Ulusy.[66] On that day at six o'clock in the morning, the Kalmyk are put on cattle trains moving from the mild steppes through the tough Siberian winter. The forced journey will take two weeks. The cattle trains are made of wood, which lets the cold and draft seep through. During this deportation, many people die.

> *At one of the stops one of my relatives mistakenly tried to enter a different wagon. When she opened it, it was full with dead bodies. They kept one wagon to carry the dead. When the convoy of soldiers noticed her discovery, they did not let the people out at the next stop. The soldiers quickly unloaded the bodies and threw them on the ground next to the tracks.*
> *The living witnesses in Siberia said that because the bodies were thrown out in December, they were only discovered in spring when the snow melted. Bodies were seen floating down small rivers, it was horrifying to watch.*[67]

64 Chingis Azydov, "Kalmyk traditional clothing and yurt development. From nomadic to post soviet period," in Visser with Schäfer, *We, the Presidents of Planet Earth*.

65 Ibid.

66 Elza-Bair Mataskovna Gouchinova, *The Kalmyks*. London: Routledge, 2006, p. 25.

67 Excerpt from an interview with Gennadiy Korneev, in Visser with Schäfer. *We, the Presidents of Planet Earth*.

The Kalmyk bodies are moved from their axis, through space in the cold, taken on the cattle train, and floated down rivers. The ones that do arrive in Siberia are resettled to six different locations. About 92,000 Kalmyk are located in, or near Siberian villages with whole families.[68] There, they are forced to work and start a new life.

During my interviews with survivors of these deportations—as well in interviews from other sources—it becomes clear that a main issue for the displaced Kalmyk is the change in climate and landscape.

> *When my parents arrived in Siberia, there were no houses to live in, so they dug a hole in the ground to create a makeshift house [...]. While they were living in the ground my brother was born. When my mother went back to the farm the milk would flow from her breasts. That winter was very early, in October, there was already snow. She went out and realized that the flowing milk was freezing against her chest. I don't recall her ever telling me she was cold.*[69]

Many of the interviewed mention the Siberian forest with a certain amount of disdain. One cannot see anything for the trees, it almost sounds like feeling encircled, no space for *endless contemplation*.

And even though temples, cities, and villages in Kalmykia were destroyed, after thirteen years of exile, the Kalmyk couldn't wait to get back to the steppes.

Desertification.

Years after the war, the Kalmyk do move back, but the steppes are not the same. They discover that Russian farmers had taken over the Lower Volga region during their absence, igniting a new agricultural era. The first decision the Russian farmers had made was to grow corn on the steppes. Corn is infamously hydrophilic and draws out moisture from the soil. Additionally, sharp-hoofed Grozny sheep had been introduced that plow away the roots of the grasses. This subsequently starts a process of desertification. That process will accelerate in the

68 Human Rights Watch, *"Punished Peoples" of the Soviet Union: The Continuing Legacy of Stalin's Deportations*. New York: Helsinki Watch, 1991, p. 12.

69 Excerpt from an interview with Victoria, in Visser with Schäfer, *We, the Presidents of Planet Earth*.

coming decades, due in part to the rising global temperatures. Currently, about 80 per cent of the Kalmyk's beloved steppes are in the process of desert-forming.[70] Now, Kalmykia is known to have the first man-made desert in Europe.

The consequences of desertification will be devastating for the Kalmyk. Like a slow-moving atomic bomb, biodiversity starts decreasing, water shortages become more frequent, suitable land for farming subsides, and poverty increases.[71] Many young people immigrate to Moscow or elsewhere Russia; the population is steeply declining. But the crisis is also cultural; there are two to three generations between the pre-collectivization nomadic farmers and the present-day farmers. This means that knowledge of traditional farming has largely disappeared, and the Kalmyk have to build a new system from scratch. But in developing this system, the Kalmyk are not entirely free. Even though the Soviet state has ended, the current state still oversees land distribution and methodologies.

The Kalmykian desert is a perfect example of exactly how complicated it can be to write the climate disaster. If the BBC asked "Is climate change to blame for the desertification of Kalmykia?" the answer could not be a conclusive "yes." This history consists of many separate tragedies: collectivization, deportation, and desertification. But when looking through the lens of the supersaga, these tragedies form one book. From this perspective, it becomes clear that displacing people in their own, changed environment is an act of violence in its own right.

Kalmykia is in dire need of climate action. However, in order to mediate or communicate it, a vast knowledge of the nomadic history, the deportations, and of current relations with Russia is necessary.

Soil vegetation degradation.

Currently in Kalmykia, there is an internal debate regarding how to reestablish cultural identity in the wake of the devastating actions of

70 Marc Elie, "Formulating the Global Environment: Soviet Soil Scientists and the International Desertification Discussion, 1968–91," *The Slavonic and East European Review, vol. 93, no. 1 (2015), pp. 181–204, here p. 202.*

71 Maxim Babenko, "Surviving in isolation: Where the steppe has turned to sand," the *New York Times* (May 10, 2021), https://www.nytimes.com/2021/05/10/travel/kalmykia-russia.html, accessed January 7, 2022.

the USSR. Even though the topics of preserving the language and the revival of Buddhism are alive in the public discourse, the disappearance of the steppes is less so. The steppe forms the fabric of the Kalmyk's cultural identity, but during my research in Kalmykia, I noticed that desertification is hardly mentioned by the (non-farmer) population. The current hardship of the Kalmyk is such a stratified, intertwined geopolitical issue that the role of climate becomes almost invisible. This changed briefly in the spring of 2021, when tulips suddenly appeared all over the steppes, and the whole country rejoiced.

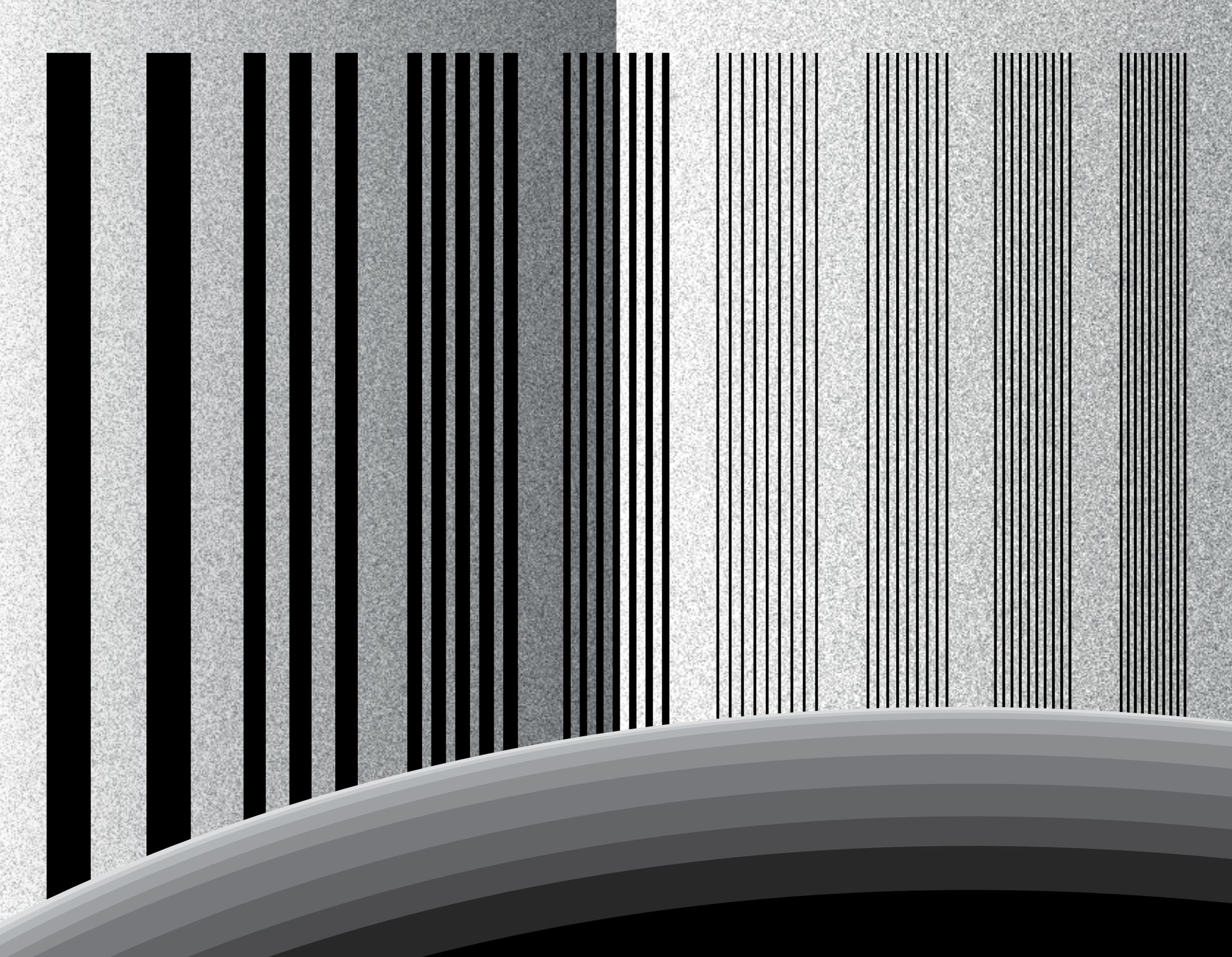
The contribution of war to climate change often gets overlooked in reporting. The so-called climate war in Syria, for instance, is already causing a significant change in environment and climate, including affecting air pollution, deforestation, soil vegetation degradation, and water depletion.

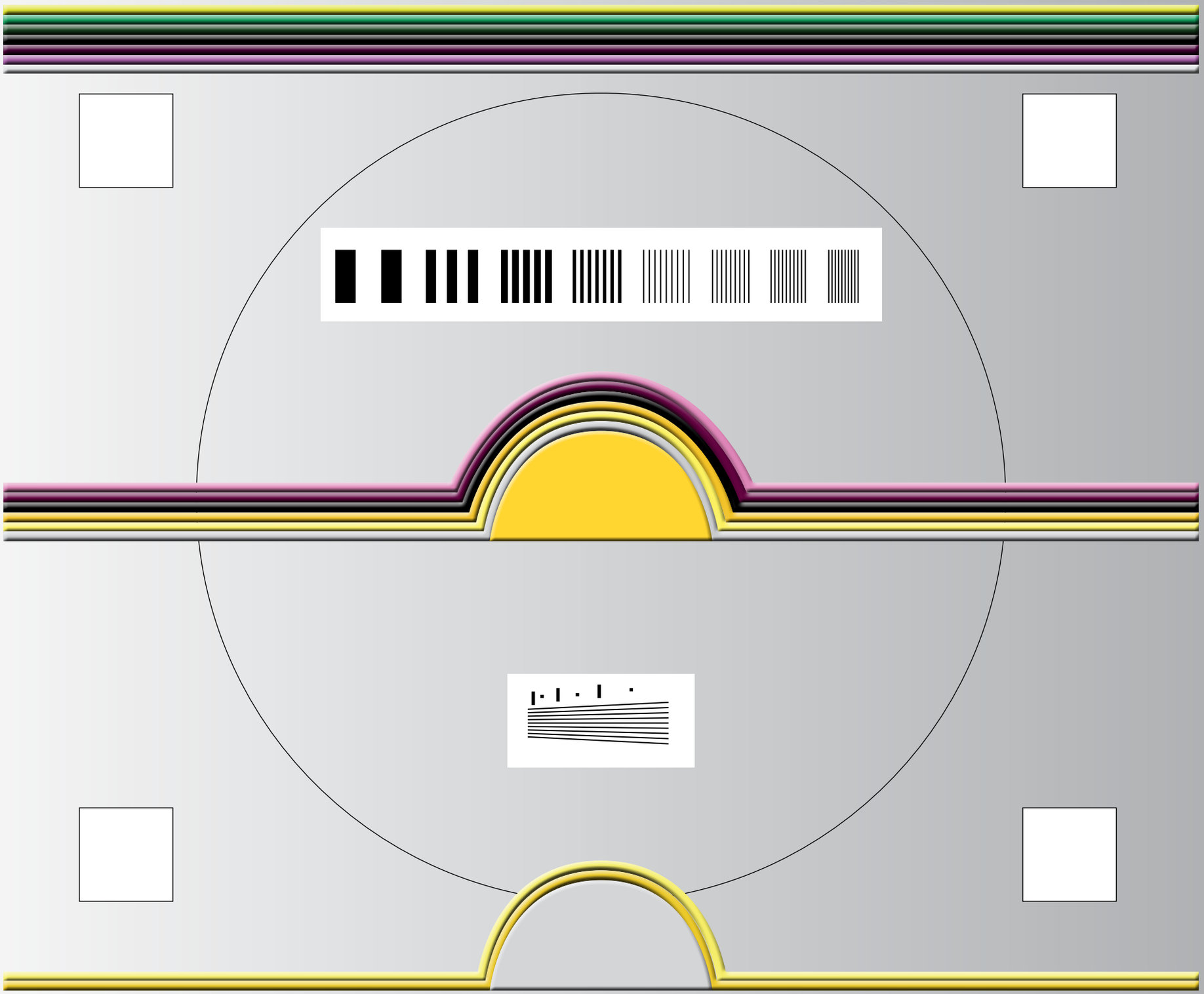
All through the supersaga, wars cause environmental devastation. They transform and exhaust environments. This shift in environment subsequently causes a cultural crisis, the effects of which will be felt in the decades to come.

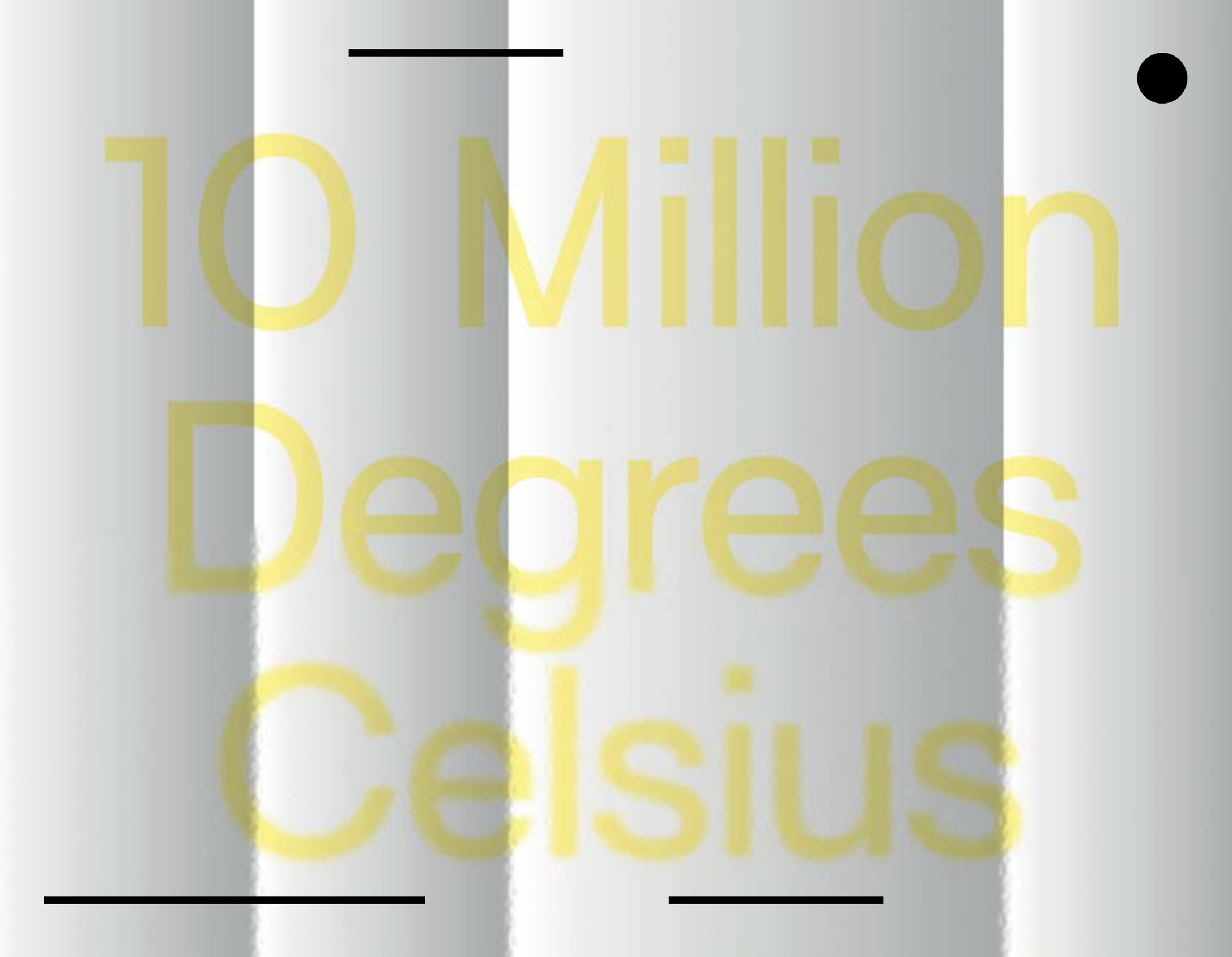
Fire-eye, lacking its lashes
of downpour and rain.
It burned our fields, our land,
whole populations of stalks of grain
shaken like straw.
The fields grew smoky and the grain turned yellow as death and fell.
The grain shriveled as mice ate it.
Is the sky sick?
Does the sky hurt?
Furious fire-eye, burning our hayfields,
our grasses and gardens,
constantly burning, its clouds-brows gone. People sat down in a daze
to wait for a miracle, and
there wasn't one.
They were waiting to die.
This was a sky-blue disaster.[72]

72 Khlebnikov, *Collected Works of Velimir Khlebnikov, Volume I,* ed. Vroon, p. 108.

Endless Feather Grass






10 Million
Degrees
Celsius

Interbellum

The weather-event-blame-game.

The writing of the *climate disaster* as one supersaga opens up different books with interconnections, ambiguities, and invisibilities, and it would mean moving away from the current narratives reported by the media. The people in Southamerica, the Russians, and the Japanese perhaps did not have the level of scientific knowledge available in the present day, but the blame game they played still persists. Current climate-change related disasters are often directly followed by humanity's shame in having "angered the weather-gods" by not caring for the environment in the way we should have.[73] Throughout history, the appearance of the disaster must *mean* something. In the case of a not-unrelated disaster, at the outbreak of the Covid-19 pandemic in 2020, the UN's environment chief Inger Andersen said "nature is sending us a message."[74]

The supersaga avoids the blame game by holding and sustaining all of these viewpoints within itself. By doing so, it opens up a tension field between absolutism and relativism. For instance, if the causes of the desertification of Kalmykia are so complex, then how can we ever describe them accurately? If a story retains nuance, how does one ever mediate and move into action? How can an ambiguous *was*, *is*, and *might-be* help to create any type of clarity? While writing the supersaga, this tension field will be the basis of infinite negotiations.

> *How can we write or think about disaster when by its very nature it defies speech and compels silence, burns books and shatters meaning?*[75]

73 Sarah Fecht, "How Exactly Does Carbon Dioxide Cause Global Warming?," *State of the Planet* (February 25, 2021), https://news.climate.columbia.edu/2021/02/25/carbon-dioxide-cause-global-warming/, accessed January 7, 2022.

74 Damian Carrington, "Coronavirus: 'Nature is sending us a message', says UN environment chief," the *Guardian (March 25, 2020),* https://www.theguardian.com/world/2020/mar/25/coronavirus-nature-is-sending-us-a-message-says-un-environment-chief, accessed January 7, 2022.

75 Blanchot, *The Writing of the Disaster*, back cover.

From the optimistic to the strange.

Through different times, the weather-event-blame-game gets played all over the curvature of the world. In all these times, climate is a factor *into*, *inside*, and *out of* war.

Just like in 1600, we are currently in a global climate event: in the twenty-first century, it is various industry, farming, and logistics that emit excess carbon dioxide (CO_2) particles into the air. These CO_2 particles form a blanket around the earth in their own right, but with the opposite effect to the veil of sun-reflecting sulfate aerosols from Huaynaputina. The particles absorb infrared rays from the sun that have been bounced back from the earth's surface. Rather than letting the infrared escape back into space, the CO_2 particles absorb and reemit the rays back to earth. In this way, rather than blocking out the sunlight, they form an insolation blanket of warmth around the earth. The more CO_2 emitted, the more heat is captured around the earth. Even though we are currently living amidst the veil of CO_2 particles, we continuously write as if the future is where the climate disaster might take place: "In our book, *The Future We Choose,* we outline two possible futures,"[76] "Three scenarios for the future of climate change,"[77] and "Five possible climate futures—from the optimistic to the strange."[78]

Reporting on every sub-disaster still has an aura of "it is starting to happen."

While conceptualizing *might-be* futures, we reason as if the climate disaster is not the state the earth-ball is currently in. Blanchot depicts the disaster as an either/or: either one is outside of the disaster or in its

76 See Christiana Figueres and Tom Rivett-Carnac, "What the World Will Look Like in 2050 If We Don't Cut Carbon Emissions in Half," *Time (April 22, 2020),* https://time.com/5824295/climate-change-future-possibilities/, accessed March 28, 2022.

77 See Elizabeth Kolbert, "Three scenarios for the future of climate change," the *New Yorker (October 5, 2020),* https://www.newyorker.com/news/annals-of-a-warming-planet/three-scenarios-for-the-future-of-climate-change, accessed January 7, 2022.

78 See Madeline Stone, "5 possible climate futures—from the optimistic to the strange," *National Geographic* (August 18, 2021), https://www.nationalgeographic.com/environment/article/5-possible-climate-futures-from-the-optimistic-to-the-strange, accessed January 7, 2022.

midst, there is no halfway. But is it possible to be in the disaster's midst and not know? The supersaga situates the climate disaster in the present moment, as the ongoing state of the world. All geopolitical wars are climate wars, be it in the past, present, or future.

As becomes clear in the case of Kalmykia, cultural entanglements with the local climate are so delicate that any shift in this climate is a cultural crisis. A change in local climate can feel like an on-site displacement. By placing the climate disaster in the present, it illuminates how, all over the curvature of the world, this cultural crisis is already happening and is in direct need of mediation.

The writing of the climate disaster.

By means of zooming out, jumping scales, and untying knots of interwoven geopolitical conflict, the supersaga of climate war is able to conceptualize the dynamic interrelation of climate and conflict. This method—of zooming in on zooming out—enables the writing of the climate disaster.

The writing of the climate disaster enables more concise communication, mediation, and climate action. Furthermore, it increases adaptability to the new conditions which individual sub-disasters will bring. The earth, *sustains and holds everything within itself*, the whole *climate war* at once. The supersaga continues.