

**MEMORY MADE MATERIAL — UNEARTHING THE HISTORIES OF MONUMENTAL  
MATTER**

*a project by em chan dickson*



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## **ABSTRACT**

This narrative web experience invites readers to rethink their own relationships with the material world. The piece frames materials within Western monumental structures — namely the marble pedestal, the bronze figure, and the “living” rock carving — not as inanimate instruments in colonial systems, but as living victims and actors within those very systems. I examine how these materials are treated within the Western monument-making process through alternate frameworks—namely Neolithic, Queer and Indigenous material theories—in order to expose the violences inherent in Western material theory and practice. This piece, structured in a series of web pages, leads the reader through a research narrative strung together from conceptual images, academic text, and instructions for a tactile activity. I intend to explore how the critical lenses we apply to examine monumental materials can act to liberate them from the inanimacies inflicted upon them, and highlight the resistances they mount against monumentalization, prompting a further “dematerialization” of the Western monument.

1) *Go outside and dig. Dig a hole.*

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*Use a shovel, a trowel, a spoon, your bare hands. Dig your fingertips in the dirt.*

*Dig until it is palm-sized, until you can set your fist in it.*

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*Dig until you hit clay.*

## INTRODUCTION — BENEATH THE FINGERNAILS

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*We think the material and the social are co-constituted. There is no social cream to skim off the top or to squeeze from the sponge. We see sociality and materiality...as together making “composites,” as cohabiting one another, or feeding into one another, or making and re-making one another.*

— Kim TallBear, “Why Interspecies Thinking Needs Indigenous Standpoints”

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Growing up, between the ages of four and twelve, it was hard to find me with clean hands.

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Much to my parent’s dismay, I would trail dirt and grit behind me onto the rugs and hardwood floors, fingernails sore with the perpetual pack of fresh dirt. I would map my days out in tunnels I dug beneath the maple tree in my front yard. I was the closest to the ground I would ever be before death. It was like I was making friends with it, with the grass and soil and rocks contained within it—so that burial might be a kind of reunion, the gravedirt hit a familiar feeling. I carried it with me—on my skin, in my hair, in my pockets. I became obsessed with collecting material, hoarding it in empty jars and cans I stole from the recycling. I would walk the neighborhood like a crazy old prospector, scooping up gravel, rocks, seeds, and woodchips to fatten my collection.

My most prized possession was a chunk of brilliant red clay that I had unearthed from a particularly deep hole beneath the maple. I kept it in an old tupperware container, covered with a wet paper towel that I would change out every day to keep the stuff from crumbling. I remember being told that clay was rich with minerals, energy that fed the grass and the soil and the trees.

I would take it out of its plastic box sometimes, rub my hands bloody with it, and think, *life*.

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I used these materials to make what I called “potions.” I would combine them in strict measurements, mixing them together with my hands until they formed something new. I was putting them in conversation with one another, exploring their relationality, what they could make when their qualities fused. I learned that the clay, even in small doses, dyed everything it was mixed with a muddled red, that wetting gravel formed a kind of cement-like paste, that crushed-up Crayola chalk, wood shavings, and a little rainwater made a pretty decent thickener. Sitting on a stool in my garage with my jars, a stick, and a big bucket, I was conducting my own kind of material studies, building out theories and ways of seeing that exposed the latent affordances and energies that these materials held. Looking back, I can recognize now that I saw these materials as living things, capable of enacting change on their environments and the materials around them.

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I was reminded of this potion-making when, in conducting my research for this catalog, I read material theorist Tim Ingold's "Materials Against Materiality." The work begins with a request: that the reader, before beginning the article, goes out and finds a "largish stone, though not so big that it cannot be easily lifted and carried indoors."<sup>1</sup> He asks that the rock be submerged in water, then left out before the reader as they work through the article. Ingold encourages the reader to look at the rock from time to time throughout the process.

By the time the article was done, the stone had finished drying completely, and yet, it seemed different than it was before. "Stoniness, then," Ingold posits, "...emerges through the stone's involvement in its total surroundings—including you, the observer—and from the manifold ways in which it is engaged and in the currents of the lifeworld. The properties of materials, in short, are not attributes but histories."<sup>2</sup>

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This is what I'm interested in ultimately recapturing in my project—how do we uncover the histories of these materials, histories that span long before human discovery and interaction? How do we disentangle ourselves from Western notions of materiality and a hierarchy of animacy to discover the latent, inherent energy in these materials again? How do we recognize them as having lives of their own, as being situated within complex networks of relationality and support? How do we draw attention back to the dirt, the grass, the rocks, the metal?

How do we get our hands dirty again?

In the words of Ingold, "Materials appear to vanish, swallowed up by the very objects to which they have given birth...for the time they have congealed into objects they have already disappeared...in reality, of course, the materials are still there and continue to mingle and react as they have always done, forever threatening the things they comprise with dissolution or even 'dematerialization.'"<sup>3</sup>

What might recentring materials reveal about the violences engendered in Western notions of materiality? How else might we think of these materials, not as instruments of colonialism, inanimate matter given life by man, but as themselves victims of colonial systems, as beings latent with life that is overwritten and obfuscated in their forced assimilation to the Western image? In this piece, I invite readers to explore how the critical lenses we apply to examine monumental materials can act to liberate them from the inanimacies and subjugations inflicted upon them.

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<sup>1</sup> Tim Ingold, "Materials Against Materiality." *Archaeological Dialogues* 14, no. 1 (2007): 1.

<sup>2</sup> Ingold, "Materials Against Materiality," 15.

<sup>3</sup> Ingold, "Materials Against Materiality," 9.

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I focus on three common monumental materials, and apply a different non-Western material lens to each.

The first section will address the marble pedestal, and draw attention to systems of marble sourcing and labor by viewing them alongside theories about Neolithic stone formation sites in Northern Wales, Portugal, and the French island of Jersey.

Next, I will examine the monumental bronze figure through the lens of Queer theory, namely Mel Y. Chen's Queer animacies as well as points made by queer poet and literature scholar Ocean Vuong to discuss how the metal becomes entangled in cycles of haunting, dominance, submission, and violation.

I will end with an interrogation of the monumental medium on which perhaps the most overt violence has been inflicted, the "living" rock carving, through the lens of Indigenous materiality. I will use theories proposed by Indigenous researchers and writers, centering on the works of Chickasaw and Choctaw scholar Heather Ahtone and Sisseton Wahpeton Oyate scholar Kim TallBear to expose how this rock is often Indigenized in order to erase sacredness and impose ownership.

Through this process, I hope to expose the violences inherent in the Western monument-making process and their similarities to the violences enacted upon colonized peoples, and offer alternate lenses through which to regard these materials that build them out as beings with agency and animacy of their own. In my conclusion, I will examine how these materials can stage their own resistances to Western construction practices.

If Tim Ingold is correct in his point, then I anticipate that unearthing the material systems inherent in finished pieces will catalyze a liberating dematerialization of Western monumentality.

2) *Collect your materials. Walk along your street with your head down, your eyes watching the ground.*

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*You will need:*

***A stone.** Hold it in your non-dominant hand as you complete the next steps.*

***A fistful of gravel.***

***A sturdy stick,** no shorter than half a foot long.*

***Several berries or seeds,** bright and wet and full.*

***A shiny piece of metal** — a nail, a coin, a discarded spring or washer.*

***A cup of water.***

*What are you holding?*

## I. EMPTY PEDESTALS — A NEOLITHIC LOOK AT MARBLE

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The origin point of Western sculpture traditions gleams a smothering, overwhelmingly enduring white.

Much of what is labeled “classic” sculpture is plucked from Greek and Roman relics, the purest marble fashioned into ideal physical forms, palatably muscled contrapposto figures draped in fabric that flows like water, betrays the inanimacy of the stone that comprises it. Handsome men and beautiful women, regarded as the epitome of Westernity— unsurprising, then, that all of them are pure white. In Western nations, we see this monochromy reduplicated in neoclassical architecture and statues—the past persevering through the material. A kind of social haunting, complete with ghostly pale figures.

However, the supposed whiteness of classic statues is a fallacy—many of them were actually painted,<sup>4</sup> and the current monumental world’s obsession with purity and whiteness is based on an attempt to mimic an inaccurate representation of Greek and Roman art. We see marble, stripped of any memory of color, subject to a sort of concussive material amnesia, recontextualized from a lie to mean enduring whiteness. It thus has become without origin; its essence emerges from a divine white universality that does not lend attention to sourcing.

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Though little is known about the origins and purposes of Neolithic stone formations and carvings, the stones erected in this era provide hints towards early attitudes towards materiality and material significance. Blaze O’Connor and Gabriel Cooney, in their introduction to *Materialitas*, suggest that these stones were seen to have social lives beyond their interaction with humankind — that stones “were perhaps ‘known’ — spoken of, journeyed to, engaged with, recognized — before the decision was made to work them physically.”<sup>5</sup> The sourcing, extraction, and arrangement of these materials seemed to have encouraged a kind of stone “socialization.”

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For one thing, the stones most often retain “their original shapes, textures, colors, fissures, and other features.”<sup>6</sup>

Sites like the Monte de La Ville megalithic tomb on the now-French island of Jersey contain different types of stones that have clearly been taken from different outcropping or cliffside locations.<sup>7</sup>

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<sup>4</sup> Margaret Talbot, “The Myth of Whiteness in Classical Sculpture.” *The New Yorker*, October 22, 2018.

<sup>5</sup> Blaze O’Connor and Gabriel Cooney, “Materialitas and the Significance of Stone.” in *Materialitas*, ed. Blaze O’ Connor et. al (Oxbow Books: 2010), xxiv.

<sup>6</sup> O’Connor and Cooney, “Materialitas,” xxiv.

<sup>7</sup> Chris Scarre, “Stones With Character: Animism, Agency, and Megalithic Monuments.” in *Materialitas*, ed. Blaze O’ Connor et. al (Oxbow Books: 2010), 10.

Sites like the Anta da Lajinha megalithic tomb in present-day Portugal are situated around or within the sites that they have been quarried from, allowing archaeologists to trace each stone to the indentation in the nearby cliff or outcropping from which it was taken.<sup>8</sup>

Attention was drawn to the sourcing in this way, allowing patterns of origin and relationality to unfold across the landscape. The surrounding environment, then, became charged with a source of energy. “If those sources were already considered places of power in the landscape, the use of largely unworked blocks may have been a means of visibly appropriating those powers of place.”<sup>9</sup>

Thus, each stone was allowed to *remember*, not only retaining the memory of its origins, but invited to form a collective memory when placed in conversation with stones from different sources.

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The root of the word “monument” comes from the Latin *monere*, meaning “to remind.”<sup>10</sup> However, it is clear that this reminding or remembering is a selective, almost fetishistic clinging to the past, and the tyranny of Western monuments stems just as much from what is erased or forgotten.

Modern monumental stoneworking levies consistency in shape and formation until it is impossible to tell one plinth from the next, and a blocky, white uniformity is reached. Colonial attitudes towards enforcing the white experience as a naturalized universal are evident in these obfuscations of origin.

What’s more, much marble is used in the making of pedestals, whose purpose is to exalt and separate bronze figures from the average viewer. In many ways, distance from a so-called “source of power” is not only inherent, it is emphasized.

Marble for monumental pedestals in the U.S. is most commonly sourced from quarries in Vermont or Italy, taken from underground chambers.<sup>11</sup> These interior chambers are evocative of something out of a science fiction movie — solid white from floor to ceiling, riddled with perfect rectangular holes from which the marble blocks are extracted. When attention is drawn to the material of marble, it is its sourcelessness that is emphasized, its unchanging endurance and purity and distinct “non-naturality” that becomes another white universalization — “Such substances as gold, silver, stained glass and marble are basic indications of prestige and durability and, by analogy, they can also become direct symbols of divinity.”<sup>12</sup>

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<sup>8</sup> Scarre, “Stones With Character,” 11-12.

<sup>9</sup> Scarre, “Stones With Character,” 12.

<sup>10</sup> John Kelly, “‘Calling to Mind’ the Roots of the Word ‘Monument.’” *Mashed Radish* (blog), December 5, 2017.

<sup>11</sup> Pamela H. Simpson, “Sculpture in America, Materials and Techniques.” *Grove Art Online*. (24 Feb. 2010)

<sup>12</sup> Jean Wirth, “Symbol.” *Grove Art Online*, (2003).

Within Neolithic stoneworking, the process of collaborative creation, which endures only partially through the finished works, seems to have been stressed as much if not more than the circles themselves.

In the words of Neolithic archaeologist Colin Richards, “The creation of tools, rope, rollers, and so on, inevitably created webs of interdependence whereby people were producing things that effectively embodied themselves, through their labour, and their relationship to others. These ‘projects of the stone’ created their own social rhythms and in this way the activities surrounding the dragging of a single stone brought a physicality to otherwise abstract and distant social categories enmeshing kin and communities.”<sup>13</sup>

Here, we can see the stones being invited to participate in recontextualizing and re-ordering human social systems. Perhaps in this involvement, the lives of stones and the lives of humans ran parallel to one another.

We can thus take this framework — the inherent connection between the lives and treatment of the laborers working with a material and the care of the material itself — and apply it to more modern Western notions of materiality. Modern Western art and archaeology privilege completion over the creative process,<sup>14</sup> and just as the sources of these materials are obfuscated, so are the systems of labor that quarried and transported them. However, in exposing the hidden labor abuses at the extraction sites, it becomes clear that these social lives remain entangled.



Take, for example, the city of Rutland in the heart of Vermont’s Marble Valley.

Rutland is one of the state’s leading marble producers, and its quarries supply much of the marble that makes up the facades of government buildings and monuments countrywide. These veins of pure marble set the valley up to be poached and exploited by corporations, and subsequent to the commencement of the quarrying process in the area was the arrival of a so-called “island community” — a gentrifying wave of corporate families that shunted the working class out of the town center.<sup>15</sup> The same scalpel-straight precision used to slice and displace marble from the valley went towards the creation of a strictly segregated Rutland — “[dividing] the town to ensure a continuance of the island community.”<sup>16</sup> Notoriously harsh conditions in these quarries triggered a series of worker strikes around the turn of the century that delayed the construction of many government buildings and monuments.

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<sup>13</sup> Colin Richards, “Building the Great Stone Circles of Northern Britain; Questions of Materiality, Identity, and Social Practices.” in *Materialitas*, ed. Blaze O’Connor et. al. (Oxbow Books: 2010), 57.

<sup>14</sup> Richards, “Building the Great Stone Circles of Northern Britain,” 55.

<sup>15</sup> Michael Louis Austin, “Carving Out a Sense of Place: The Making of the Marble Valley and the Marble City of Vermont.” Ph.D., University of New Hampshire (2002), xi.

<sup>16</sup> Austin, “Carving Out a Sense of Place,” xii.

A *Washington Post* article from August of 1904 reads: “Should the strike of workers in the Vermont marble quarries continue through the next few months and there is no indication of immediate settlement, the Municipal Building Commission will face a peculiar situation. The best marble, and the larger proportion of that used in the district, comes from the Vermont quarries.”<sup>17</sup>

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This story is not unique to Rutland, nor is it unique to Vermont marble; quarries across the country carry histories of dangerous conditions, low wages, and poor supervision. Just as the creation of Neolithic stone circles opened up space to reconstruct or reorder social lines, the construction of American monuments reinforces them. On some occasions, the worker resistances in marble quarries have been punished by the same forces and strategies used to institute colonial domination.

When the workers quarrying and assembling the marble for Chicago’s Cultural Center went on strike around the turn of the century, the U.S. Army’s Seventh Cavalry was called in to manage the resistance. This was the same cavalry that had, in the past, killed 300 Lakota people in the 1890 Wounded Knee Massacre, and many of the strategies they used to enact terror on Native Americans aided in suppressing quarry and construction workers’ strikes. The Settler Colonial City Project’s page on “Decolonizing Marble” reads, “For capitalists, the figuring of organized labor’s resistance to exploitation in terms of the seemingly failed Native American resistance to colonialism offered a way to symbolically manage that resistance; according to this figuration, the restive working class would be pacified just like the restive Native Americans had been.”<sup>18</sup>

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Neolithic stoneworking emphasizes that the viewers physically negotiate with the stones in their movement in and around the space. Archaeologist Aaron Watson describes walking within the cairn-dotted mountains of Snowdonia in north Wales in his project “Cardennau: Stone.” “I find myself participating in an elaborate performance with stone. Negotiating the outcrops, scree and boulderfields, I learn new ways of moving; how to balance and place my feet on stone’s uneven surface.”<sup>19</sup>

Within modern Western monumentality, not only are pedestals displaced from their extraction sites, they also are manufactured to completely disappear from viewer attention. There is no movement or connection encouraged with the stone, no close thought given to marble, its sources, and its affordances. The most the viewer comes away knowing about the material is its inherent detachment—smooth, glossy, uniformly shaped, cold to the touch. The very shape of the marble pedestal with its harsh vertical lines was designed in order to minimize erosion from

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<sup>17</sup> “Strike Hold Menace! Vermont Quarry Trouble May Cause Complications.” *The Washington Post*. (12 August 1904), 12.

<sup>18</sup> Settler Colonial City Project, “Decolonizing Marble.”

<sup>19</sup> Aaron Watson, “Cardennau: Stone.” in *Materialitas*, ed. Blaze O’Connor et. al. (Oxbow Books: 2010), 83.

acidic compounds in precipitation in outdoor spaces.<sup>20</sup> Marble remains untouched by the weather, resistant to any notion that it once came from the same cycles that produced the rain that slides off its surfaces.

Watson discusses the importance of stone's interaction with other natural materials: "The living rock ebbs and flows with the light and weather. Enlivened by water, stone can be fluid...a shapeshifting, transient material. In my presence, stone has a rhythm and a heartbeat."<sup>21</sup> We can interpret this distance from the elements, then, as a suspension of life, an etherization of the material. In the way marble has been carved and treated, there is nothing within it that we can recognize as coming from the earth at all. The architecture of stone becomes, in the words of Watson, "haunted with ambiguity."<sup>22</sup>

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<sup>20</sup> Susan Sherwood, "Acidic Deposition and Marble Monuments at Gettysburg National Military Park." *APT Bulletin: The Journal of Preservation Technology* 23 no. 4 (1991): 52.

<sup>21</sup> Watson, "Cardennau: Stone," 86.

<sup>22</sup> Watson, "Cardennau: Stone," 88.

3) *Run the gravel through the fingers of your free hand. Feel its weight disperse across your skin.*

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4) *Return to the hole you've dug. Add the gravel to the hole with a cupful of water. Run it through your fingers. Get them wet. Watch the water disappear into the earth.  
Watch as the rocks and the dirt drink.*

*What are you holding?*

## II. AN EXORCISM FOR A STATUE — QUEERING BRONZE

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Several months after the assassination of Abraham Lincoln, the Reverend Henry Ward Beecher spoke to a congregation at Brooklyn's Plymouth Church about his experience seeing the bronze replicas forged from life-casts of the president's face and hands:

*"And now the martyr is moving in triumphal march, mightier than when alive...disenthralled of flesh, ridden to the unobstructed sphere...he begins his illimitable work. His life is now grafted upon the infinite and will be fruitful as no earthly life can be."*<sup>23</sup>

In the casting of these bronze forms, Lincoln's soul had been substantiated into the metal, and in this transmutation was able to transcend to immortality. Many of the over 200 statues of Lincoln<sup>24</sup> that exist in America are cast from these original molds. The hardening of the molten matter alchemized the splitting of Lincoln's body, almost Christ-like, into thousands of copies.

And thus, Lincoln kept on living.

The monument-making process becomes a sort of haunting, a possession—the ghost of Lincoln is caught in bronze, suspended in a single moment in 1865, unaware that the bullet ever entered his skull.

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This reliquation, however, carries with it an unmistakable condition — that, in order to be exalted in this way, the metal first had to be shaped into the form of man. The life that the bronze took on in its many iterations had always relied on the presence of an outer being to grant it a soul.

It was, in public opinion, not only Lincoln who transcended, but the material bronze as well — sculptor Lorado Taft commented, "It does not seem like a bronze: there is something human, or shall I say? — superhuman about it. One stands before it and feels himself in the very presence of America's soul."<sup>25</sup> Many American statues hold this same material tension. These figures rely on their materials for immortalization, but the materials are always subservient in the hierarchy of animacy, and are only living in their proximity to humankind's creation.

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Queer theorist Mel Y. Chen, in their book *Animacies*, discusses how materials must first be rendered inferior in order to be manipulated and utilized in the way that they are in the West.

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<sup>23</sup> Henry Ward Beecher quoted in Ramey Mize, "Sacred Substantiations: Lincoln Casts and Statuary in the American Imagination." *Contemporaneity: Historical Presence in Visual Culture* 8 (October 30, 2019): 39.

<sup>24</sup> "Abraham Lincoln," *Statue Stories Chicago*.

<sup>25</sup> Lorado Taft quoted in Mize, "Sacred Substantiations," 41.

Chen grapples with this contradiction — “matter that is considered insensate, immobile, deathly, or otherwise ‘wrong’ animates cultural life in important ways.”<sup>26</sup> They contend with how, in an effort to produce humanness, contemporary Western mankind commits a “definitional crime” in its creation of binary differential systems. Among these binaries is “life/death”<sup>27</sup> They posit that the common beliefs surrounding life and death also engender the body as being separate from the soul, and can be traced back to the Platonist concept of the soul being the spirit that animates the body.<sup>28</sup> This belief is consistent with how Lincoln’s life casts were regarded—the president’s soul had not actually perished, but had instead found a better, more resilient body to inhabit.

The life/death binary and its associated soul/body binary then position the free-moving, free-thinking soul over the inferior body as a vessel for that very soul. Queer material theory examines how these terms are gendered, as vessels throughout Western culture and myth have been viewed as female. Feminization as a means to dominate is common across Queer theory.<sup>29</sup>

*(In the original myth of Pandora, she does not open a box at all but a pithos, a large clay storage jar. It is not difficult to recognize the connection between the jar, commonly used to hold seed, and the female body.)*

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We can then interpret the bronze figure-forging process as a kind of insemination, a material rape:

- The process begins with the sculpting of a relief mold filled with wax or clay to maintain the integrity of the shape.
- Molten bronze is then poured inside the mold, quickly melting and flushing out the clay or wax.
- The metal hardens into the shape of the figure, and the statue is finished.<sup>30</sup>

The casting process can be read as the domination or brutalization of a yielding, impermanent female material by a violent, permanent male form.

However, this interpretation also reads into a male/female binary, and it too becomes complicated when the resulting bronze statue itself becomes a vessel for the insemination of a soul—bronze figures made from this casting method are completely hollow, themselves death

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<sup>26</sup> Mel Y. Chen, *Animacies: Biopolitics, Racial Mattering and Queer Affect*, (London: Duke University Press, 2012), 2.

<sup>27</sup> Chen, *Animacies*, 3.

<sup>28</sup> Chen, *Animacies*, 4.

<sup>29</sup> Queer poet and scholar Ocean Vuong references how the baroque style of writing, once seen as masculine and conquering in its expansive language, had to be “deemed worthless by feminization” once World War I brought about a more sober literary style. (Ocean Vuong, “On Making.” *Seattle Arts and Lectures Series*, 9 June 2021: 6:00-7:30 pm, Virtual talk.)

<sup>30</sup> Simpson, “Sculpture in America.”

masks waiting for life. The Queer interpretation of bronze materiality exposes the West's propensity to dominate the materials it uses, but also the fallibility of the stringent binaries that produce this domination in the first place. What remains is an entanglement of contradictions that haunts the material, subjugates it to cycles of violence, power, and inferiority.

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Mark Lewis pinpoints one of these cycles when he discusses monumental bronze as a symbol of "terror" — "Many of our monuments and public works of art are made from metal. Metal is cold to touch. This is a metaphor that on closer inspection constantly envelops the description of leaders, now bronze cast or engraved in metal, unimpeachable in their authority."<sup>31</sup> Here, the affordances of bronze — its coldness, permanence, unbudging resistance to the elements — support the notions of national subjugation. Preserved in bronze, both system and ruler live on.

This terror is not only manifest in the metal's evocation of a permanent imprint of the oppressive ruler's face but more directly in bronze's connection to the war machine. America got its bronze-forging techniques from Europe, one of the largest global dealers in colonial-imperial terror.<sup>32</sup> Traditionally, in Europe, the bronze used for statues was also used to make weapons to supply ammunition to the cycles of wars that burned for centuries. What's more, the very bronze that made up these statues was often the same metal used to feed combat—broken and uprooted statues were melted down to make bullets, guns, and cannons. Once these wars came to a standstill and weapons were not needed anymore, they were melted back to make into statues, venerating the very figures who drove these wars on.

What does it mean that these masters of terror, the government officials that fed the wars and the generals that carried them out, are immortalized in the very same material embedded in the bodies of the people exploited to bring these officials to power?

If Ocean Vuong is right in referring to the gun as the "great eraser,"<sup>33</sup> how does function translate across forms when that gun is made into a statue?

The question of exorcism or burial becomes complicated when Lewis posits that bronze merely takes on new life every time it is destroyed: "it is not the least bit surprising that [permanent monuments'] eventual demise should reduplicate the terror, both in the act of destruction itself and the recycling of the works into yet further instruments of terror and subjugation."<sup>34</sup>

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Taking all this terror into account, how, then, can bronze be seen to act with agency? How can it transcend these violent cycles?

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<sup>31</sup> Mark Lewis, "What is to Be Done." *Afterall: A Journal of Art, Context and Enquiry* 50 (September 1, 2020): 104-131.

<sup>32</sup> Michael Edward Shapiro, "Bronze Casting and American Sculpture, 1850-1900," *American Arts Series*, (London: Associated University Presses, 1985).

<sup>33</sup> Vuong, "On Making."

<sup>34</sup> Lewis, "What is to Be Done," 104-131.

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In *Animacies*, Chen represents the “inanimates” branch of a hierarchy of animacy built by linguist John Cherry like this:

*motile/active>nonmotile/nonactive ; natural>manmade ; count>mass*<sup>35</sup>

Attempting to determine bronze’s position on this limb alone, however, unearths a mess of entanglements and contradictions within the hierarchy.

\* One might think to consider bronze as nonmotile/nonactive, and place it inferior to things like plants, wind, and water. However, we can recognize that, in its molten state, bronze can move freely to fill and mold to any container, acting with and upon other materials to cast a shape. What’s more, the fact that the metal can move so easily between solid and liquid states may constitute another kind of motility.

\* Bronze itself is forged by man, but from a combination of tin and copper, two naturally occurring metals.<sup>36</sup> Where, then, does it fall within the “natural>manmade” binary? If man himself is a product of nature, couldn’t anything man-made also be considered “natural?” Why, even, do we have to distinguish between man and nature at all?

\* Lastly, bronze is the single most common medium for outdoor monumental statues, and over 5,000 of these pieces,<sup>37</sup> made with the same wax-casting method, dot the country. This might relegate it to the “mass” tier, but take into account that every single bronze statue is unique, made to hold a specific piece of a specific person’s soul, to occupy a specific place, not only spatially but symbolically. How deep does “count” run?

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Here, then, is a unique affordance of bronze that exposes the frailty of these animacy-ranking systems: its *queerness*.

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Bronze possesses a flux, an ability to flow between molten and solid states when heated and cooled, to travel along spectrums and across binaries, to occupy dominance and submission, femininity and masculinity and the spaces in between.

With reference to Cherry’s linguistic hierarchy of animacy, Chen explains: “This schema asserts that an adult male who is “free” (as opposed to enslaved), able-bodied, and with intact linguistic

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<sup>35</sup> Chen, *Animacies*, 27.

<sup>36</sup> “History of Bronze Infographic.” Website | Making Metal Powders (UK).” Accessed August 6, 2021.

<sup>37</sup> Lewis, Danny. “It’s Way Too Hard to Find Statues of Notable Women in the U.S.” Smithsonian Magazine.

capacities, one who is also familiar, individual, and positioned nearby, stands at the top of the hierarchy as the most ‘animate’ or active agent within grammars of ordering.”<sup>38</sup>

This subject might seem familiar, and that’s because it encapsulates a majority of the Western figures memorialized in bronze. What, then, does it mean to depict the supposedly “most animate” being in one of the least animate media? What does this positioning, this folding of the material hierarchy, reveal about both man and metal? Do the similarities drawn between the might of Lincoln and the bronze he was cast in do more to expose the closeness of the two things than reinforce material-hierarchical boundaries?

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Taking bronze’s queerness into account, does Lewis’s point about the reduplication of terror in monumental demise remain valid?

In the same section on Queer linguistics, Chen discusses the movement of the word “queer” from a derogatory term to an empowering identity description. They pinpoint the two contradictory paths the word has travelled— “*re-animation*, (beautiful collectivity/assemblage/reengagement of self with animate force) and *de-animation*, which might help to explain the widespread fatigue with queer identity politics and internal racisms.”<sup>39</sup>

The “terror” that Lewis discusses manifests as icy de-animation; he uses words like “coldness,” “permanence,” “resistance to the elements.” It seems as if the de-animation in part contributes to systems of terror by seeing it as all bronze could hope to become — man or gun, another false binary. When attention is drawn to the animacies of bronze—its motility, its queerness, its flux—it opens up possibilities for its molten form to take on other shapes, or transcend shape altogether.

After all, isn’t new life after exorcism exactly what reclamation entails?

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<sup>38</sup> Chen, *Animacies*, 27.

<sup>39</sup> Chen, *Animacies*, 58.

5) *Pick up the shiny thing. Hold it between your pointer finger and thumb and turn it this way and that. Notice the parts of it that give off light, the parts that seem to glow and the parts a bit too dull from weathering.*

*Press your fingers into it, hard. Feel how warm it grows where you've touched it.*

*Wonder if the heat has come from your hand, or has emerged from within, a trapped, liquid warmth, like the memory of sunlight.*

—

6) *Hold the shiny thing above the hole you've dug, above the gravel and the water. Will the sunlight slip from the metal and into the earth. Feel the heat leave your fingers.*

*Place the shiny thing in the hole. Let it glint there.*

—

*What are you holding?*

### III. ERODING THE SUBLIME — LIVING STONE AND INDIGENEITY

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Before the rocks constituting his face pitched forward and fell away due to weathering and erosion in 2003, the Old Man of the Mountain was considered a “natural wonder.”<sup>40</sup> Situated on a cliffside in New Hampshire, the natural granite formations produced a series of ledges “that when viewed from just the right angle, had an uncanny likeness to a man’s profile.”<sup>41</sup>

At the time of its discovery by road surveyors in 1805, it, like many other natural wonders, was galvanized as a sign from the divine. It was discovered during the height of Western expansion, in which settlers looked to the land for justifications for manifest destiny and dominion.

However, not just any formation was accepted as a heavenly sign.

Caroline Dean comments: “While the recognition of personality and life in an esteemed rock would seem to bring diverse cultural perspectives close, it is important to note that those who loved the Old Man required imagism to see him. Manifesting what Simon Schama has called “anthropocentric fixation,” they needed the craggy rock to look like an elderly gentleman.”<sup>42</sup> So-called “living” rock was only accepted as imbued with any kind of significance or message if it bore the face (no pun intended) of mankind.

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In other words: Western sympathy only extends to what it finds familiar.

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Or, rather, what it finds useful.

When the Incan empire was colonized by the Spanish, the colonizers seized their metals and gold first, and left the Indigenous rock art untouched for a while. While “to the Inka and other Andean peoples, of course, optical realism did not mark the presence of the holy,”<sup>43</sup> the Spanish found no value in the rocks until they saw them as opportunities for profit — “Many of the rocks that the Inka valued so highly were not much valued beyond the Andes until after the mid-twentieth century, when the widespread use of photography made them collectible, and an appreciation of abstraction rendered them aesthetically appealing.”<sup>44</sup>

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<sup>40</sup> “Geology of the Old Man of the Mountain.” *The Old Man of the Mountain Legacy Fund*.

<sup>41</sup> “Geology of the Old Man of the Mountain.” *The Old Man of the Mountain Legacy Fund*.

<sup>42</sup> Caroline Dean, *A Culture of Stone: Inka Perspectives on Rock*. (Duke University Press: 2010), 9.

<sup>43</sup> Dean, *A Culture of Stone*, 12.

<sup>44</sup> Dean, *A Culture of Stone*, 10-11.

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While Western notions about materials ascribe to the “animate/inanimate” binary, Indigenous materiality rejects the notion that the material world exists separate from the human world at all. Kim TallBear, a Sisseton Wahpeton Oyate scholar of Indigenous material studies, elaborates: “We think the material and the social are co-constituted.”<sup>45</sup> She quotes Santee Dakota writer, physician, and activist Charles Eastman, who stated, “the spirit pervades all creation and...every creature possesses a soul to some degree, though not necessarily a soul conscious of itself.”<sup>46</sup> This latent life transcends Western divisions between humans, animals, and materials. Here, we see Indigenous materiality contesting the concept of extraction from a source body as ensuring inanimacy — bringing up the question of why there is a distinction between “living” and “dead” rock at all.

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How does one distinguish meaning and value *assigned*, in Western theory, from meaning and value *inherent*, in Indigenous theories?

Chickasaw and Choctaw scholar Heather Ahtone, in her characterization of an “Indigenous American aesthetic,” references a network of significance, an assigning of coded connections across time and space: “Within an Indigenous American cultural construct the interconnectedness of the human experience with the natural environment makes it difficult to draw distinctions, many even reject the need for distinctions, allowing that as part and parcel of the experience of living the drawing of relationships is a more powerful act than drawing lines of separation.”<sup>47</sup>

While Western art-critical thought conflates materiality with medium, which, in the words of art historian Michael Yonan, “typically is positioned as a predecessor to meaning,”<sup>48</sup> Indigenous aesthetics see little need to distinguish between material, medium, and meaning, as they are all allowed to occupy the same significant space in a network of connections. The signs and symbols encoded in Indigenous arts are encoded upon all aspects of the work: the narrative, the materials, their sources, the labor that produced it—both human and nonhuman. The rock comprising the cliffside in New Hampshire, then, was in possession of meaning and life long before it bore the face of a man.

What’s more, Indigenous materiality acknowledges the relationship between humans and materials as reciprocal. Ahtone states, “these materials are a part of the regenerative process to which we all belong. Materials are provided by the Earth for use within that reciprocal relationship.”<sup>49</sup> Materials are significant, then, in their relationality to the rest of the world, in their

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<sup>45</sup> Kim TallBear, “Why Interspecies Thinking Needs Indigenous Standpoints.” *Society for Cultural Anthropology*: 2011.

<sup>46</sup> Charles Eastman, *The Soul of an Indian*. (Boston: Houghton Mifflin Company: 1911), 4.

<sup>47</sup> Heather Ahtone, “Designed to Last: Striving Toward an Indigenous American Aesthetic.” *The International Journal of the Arts in Society: Annual Review* 4, no. 2 (2009): 377.

<sup>48</sup> Michael Yonan, “Toward a Fusion of Art History and Material Culture Studies.” *West 86th* 18, no. 2 (2011): 237.

<sup>49</sup> Ahtone, “Designed to Last,” 379.

mere existence within a web of connectivity that is inherent in nature, not because they provide some service to humankind.

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Free from the Western constraints of material utility, Indigenous materiality does not recognize a hierarchy of animacy. The focus is not on material and human boundaries, but the movement *between* these boundaries.

In the words of Leroy Little Bear, a Blackfoot researcher, “The Native American paradigm is comprised of and included ideas of constant motion and flux, existence consisting of energy waves, interrelationships, all things being animate, space/place, renewal and all things being imbued with spirit.”<sup>50</sup>

Within Western material theories, worth and meaning seem to be determined by the material’s proximity and usefulness to humanity. For natural rock in particular, Caroline Dean pinpoints spectacle as a selling point — “Goethe’s essay ‘On Granite’ praises the ability of natural rock to awe and inspire; Emerson, Thoreau, and other American transcendentalists understood the contemplation of natural rock yields great insights, so that it can be perceived with admiration and even affection.”<sup>51</sup> For writers and artists, living rock then becomes inspiration fodder for the Great American Story, and the human — specifically the white, male human — is centered in the material hierarchy.

Drew Martinez, a member of the O’odham, Diegueno, and Yoeme nations, responds to non-Native academics’ attempts to “decolonize natural resources” by remarking, “you could start by not referring to them as natural resources, they’re our relatives.”<sup>52</sup>

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The spectrum of animacy that emerges when it comes to Western notions about materials mimics social hierarchies under colonial rule. Kim TallBear explains that these hierarchies are established by the control of notions of alive-ness, or, rather, what is granted the privilege of being seen as alive. “Greater and lesser aliveness [is] attributed...to some humans over others, and to humans over nonhumans.”<sup>53</sup> Furthermore, the human / animal and human / material split “engenders violence,” as we often see that the language used to objectify Indigenous communities is often the very same used to negotiate material animacy and worth.

Colonialism exploits Indigenous peoples’ connection to materiality to conflate Native humans with objects and “resources” in this sense, and natural materials like living stone are often Indigenous in their monumentalization.<sup>54</sup> In the era of Manifest Destiny, colonially-fueled

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<sup>50</sup> Leroy Little Bear quoted in Ahtone, “Designed to Last,” 381.

<sup>51</sup> Dean, *A Culture of Stone*, 8.

<sup>52</sup> Drew Martinez tweet, *Twitter*, July 29, 2021.

<sup>53</sup> TallBear, “Beyond the Life/Not-Life Binary,” 180.

<sup>54</sup> TallBear, “Beyond the Life/Not-Life Binary,” 181.

dominance over the lands in order to claim natural wonders worked in tandem with the subjugation and murder of the Indigenous peoples on those same lands.

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What's more, expansion was predicated on the abuses suffered by natural materials in already occupied areas, the exhaustion of materials — in “Empire Makers: Earth Art and the Struggle for a Continent,” Joshua Fisher explains, “expansions are grabs for resources after efforts to conserve those resources and live within one’s limits have proven insufficient.”<sup>55</sup>

White expansionists took it upon themselves to claim expertise to properly harvest these materials, effectively invalidating Indigenous relationships with materiality. As TallBear notes, “the nation-building project relied on the appropriation of Indigenous peoples’ lands...the United States positioned itself—positioned ‘Americans’ or whites—as the rational agents capable of transforming nature into productive property, and Indigenous peoples as incapable of developing, indeed even surviving, in the face of the modern industrial state.”<sup>56</sup>

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And just as Indigenous peoples were forced into assimilation to ensure their “survival” in a colonial nation, so did the landscape assimilate to the white image.

Mount Rushmore, though it was built over a century after the era of Westward expansion, is at its core a memorial to Manifest Destiny, the mark of white power etched into the landscape itself. Gutzon Borglum, the architect behind the monument, said that it was meant to represent “the triumph of American ideals over nature.”<sup>57</sup>

Rushmore, carved from a mountain in the Black Hills, sits on the land of the Lakota Indians, who had been promised the land in an 1868 treaty. That treaty was violated only six years later when gold was discovered in the mountains, and, like the Spanish colonizing the Incan empire, prospectors ascribed value to the living rock due only to its propensity to bear profit.

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“The Black Hills were not just home to the Lakota; they were the place where the Lakota believed their ancestors emerged from the underworld,” explains Joshua Fisher, “Mount Rushmore was more than just a case of the white man dwelling where the Lakota dwelled; the white man was creating an artificial holy place where the Lakota had had their natural holy place.”<sup>58</sup>

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<sup>55</sup> Joshua Fisher, “Empire Makers: Earth Art and the Struggle for a Continent.” *Public Art Dialogue* 1, no. 1 (January 2011): 124.

<sup>56</sup> TallBear, “Beyond the Life/Not-Life Binary,” 181.

<sup>57</sup> Gutzon Borglum quoted in Fisher, “Empire Makers,” 123.

<sup>58</sup> Fisher, “Empire Makers,” 119-20.

This artificial holy place came replete with new, Western white-robed saints as well — “the Klu Klux Klan was reborn on Stone Mountain in 1915, at virtually the same time the Confederate monument was conceived.”<sup>59</sup> Borglum was one of the Klan’s biggest supporters, and allowed the group to hold their rallies on the summit of the mountain during the conception and construction of Mount Rushmore, and the monument was funded in part by the Klan.

This mountain-wide conquest ran core-deep; it was the complete dominance of one myth over another.

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Natural rock was valued in the making of Mount Rushmore because it afforded not only size and spectacle, but permanence. TallBear, in discussing Indigenous materialities, argues that Indigenous peoples “see sociality and materiality...as together making “composites,” as cohabiting one another, or feeding into one another, or making and re-making one another.”<sup>60</sup> This notion of making and re-making is missing from Western monument-making, and in its place is a suffocating endurance.

A quote from Borglum: “This colossus is our mark...Cut in the backbone of this western world, high in the heavens, fearless we have carved it, defying the elements...confident that [it] shall endure eons after civilizations upon civilizations have come, read, pondered, wondered and passed away. I am assured that these carvings will endure as long as the Rocky Mountains endure; their message will outlast Egypt’s entombed mortality, Greece’s gift of grace and loveliness.”<sup>61</sup>

It has been estimated that, given the average erosion rates of the Black Hills, traces of Mount Rushmore will exist for 7.2 million years.<sup>62</sup>

Monuments like Mount Rushmore, carved into the very “backbone” of the world, calcify and remain, uncondusive to change or criticism, remain consistent with the ideologies of permanence and power contained in colonialism.

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There then arises a strange contradiction within the material — a tension between the endurance of the stone, commonly Indigenized, and the disappearance of Indigenous communities.

TallBear argues, “the molecular definition of life is built upon Indigenous bodies that, because they are expected to vanish, do not have to be considered as among the living beneficiaries in

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<sup>59</sup> John Taliaferro, *Great White Fathers: The Story of the Obsessive Quest to Create Mount Rushmore*. (New York: PublicAffairs, 2002), 186.

<sup>60</sup> TallBear, “Why Interspecies Thinking Needs Indigenous Standpoints”

<sup>61</sup> Borglum quoted in Taliaferro, *Great White Fathers*, 1.

<sup>62</sup> Alan Weisman, *The World Without Us*. (New York: Thomas Dunne Books, 2007), 181-182.

the promises of genomic futures.”<sup>63</sup> As Westward expansion widely eradicated the Indigenous peoples of America, the notion of the “vanishing Indian” catalyzed a push for anthropological preservation, which, motivated by white saviorism and done sloppily, only amplified the disappearance.

How, then, is this vanishing held in Indigenized materials?

If Robert Musil was right in his argument that “there is nothing in the world as invisible as monuments...they de-notice us, they withdraw from our senses,”<sup>64</sup> then what does it mean to make something permanent yet completely invisible? How can materials like the natural rock that makes up Mount Rushmore afford both solidity and invisibility?

Where does disappearance end and the pervading spirit persist under the weight of the oppressor’s face?

What role does erosion play in reclamation?

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<sup>63</sup> TallBear, “Beyond the Life/Not-Life Binary,” 180.

<sup>64</sup> Robert Musil quoted in Lewis, “What is to Be Done,” 104-131.

*5) Break the berries or seed pods in your fist. Feel them pop. Let them cover your skin, palm stigmata-stained.*

*Add the crushed berries to the hole with the gravel. Use the stick, solid and dense in your wet hand, to mix them in. Where they brush against the gravel, the rocks blush.*

*Let them dye everything. Let them seep with the water.*

*Know that this is a stain that will sink deep through the clay.*

—

*6) Use your free hand to fill the hole back up with dirt, covering the gravel, the berries, the water. Press the dirt down hard.*

*Look at your free palm, still bright and wet with your making.*

*Look at the dirt you just packed.*

—

*Where is the hole?*

*What are you holding?*

## CONCLUSION — MONUMENTAL TECTONICS

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About 200 million years ago, the tectonic plates holding modern-day North America and modern-day Africa shuddered, shifted, and moved apart, a split that summoned water into the gaps to create today's Atlantic Ocean.

The waters forced in from the plates' movement rushed to invade a small, shallow sea off the coast of modern-day Italy called the Tethys, rich in calcite mineral deposits. The new water dropped the temperature and lowered the salinity, halting calcite production and lithifying the mineral into an 1,100-foot thick sheet of limestone.

173 million years after that, a tectonic block collided with the Italian peninsula, and would continue to rub up against and over the landform for the next 15 million years, heating the limestone beneath up to 450 degrees and converting it into a substance composed of tightly packed, interlocking crystals that shone a brilliant, glittering white.

Once the collision period had ended and the tectonic plate retreated from the coast, the land stretched and eroded in places to reveal a sprawling flat of Carrara marble.<sup>65</sup>

This marble, often considered the purest vein of the material, would be quarried and carved to make monuments by countless civilizations throughout time.

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About 43 million years before the collision that would form the Italian Carrara marble deposit, on the other side of the world, two tectonic plates in the Northwestern hemisphere collided and overlapped, erecting an uplift of earth along their borders that reached as high as 15,000 feet in altitude at the time. This shunted up a core of crystalline stone that dated from 2 billion years prior.

This formation, spanning about 5,000 square miles, would level off, erode, and 70 million years later it would be named "Paha Sapa" by the Lakota peoples living in the area, a phrase meaning "the hills that are black."<sup>66</sup>

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About 243 billion years after that, in 4,500 BC, members of the earliest civilizations, nestled in the fertile valley between the Tigris and Euphrates rivers in modern-day Iraq, Kuwait, Turkey, and Syria, discovered that combining molten tin, a metal made from roasting the mineral

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<sup>65</sup> David B. Williams, *Stories in Stone: Travels Through Urban Geology*. (Seattle: University of Washington Press: 2015), 167-168.

<sup>66</sup> Laura J. Bidwell, "Geography and Geology of the Black Hills," *Moon Travel Guides*. July 17, 2016.

compound cassiterite in a furnace with carbon, together with molten copper, a metal made from super-heated sulfur deposits found in tumultuous volcanic regions, would form a golden-orange colored substance exponentially more durable than its components that would not melt under high temperatures and could thus be used to make tools for working with fire and heat.<sup>67</sup>

The period of 2,100 years to follow, in which this metal would replace stone and wooden tools, was thus dubbed the Bronze Age.

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In the 1970s, a plague began to spread across America.

It was harmless to the human and animal populations, but struck a demographic that was nonetheless deemed close to the communities' hearts due to the likeness it bore to humanity. A 1984 *History News* article out of Union Square in Raleigh, North Carolina begins, "WARNING: That green gunk encrusting your town's statues is harmful to their health."<sup>68</sup> Bronze figures became encrusted with black and green substances that bore resemblance to a thick, fuzzy lichen or mold.

It was almost as if the men depicted, made immortal for so long, were finally decomposing, finally rotting.

As the community rallied around the preservation of these statues, the square became a pseudo-sickbay: 12 figure statues and seven artillery pieces, all cast from bronze, all succumbing to the same illness.<sup>69</sup> Two of the statues were constructed by Gutzon Borglum, the artist and architect behind Mount Rushmore, his work facing another kind of erosion.

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This disease catalyzed a rare moment in which attention was paid to the materiality of the monuments—visible only at their point of decomposition.

Essentially, the bronze was reacting with water, with compounds in rain and humidity and marine breezes, allowing itself to interact with the world around it. This reaction was common in communities close to bodies of water: the bronzes in New York City's Central Park were struck as well.<sup>70</sup> And, while some researchers have found ways to stall the development of this green fuzz, "none of these are permanent cures."<sup>71</sup>

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<sup>67</sup> "History of Bronze Infographic." Website | Making Metal Powders (UK). Accessed August 6, 2021.

<sup>68</sup> Samuel P. Townsend. "BATTLING THE BRONZE DISEASE: North Carolina Groups Wage a Cleanup Campaign for the Monuments on Union Square." *History News (Nashville, Tenn.)* 39, no. 9 (1984): 15.

<sup>69</sup> Townsend, "BATTLING THE BRONZE DISEASE," 16.

<sup>70</sup> Pozzi Basso, "The *Samuel F. B. Morse* statue in Central Park: scientific study and laser cleaning of a 19th-century American outdoor bronze monument." *Herit Sci* 8, 81 (2020).

<sup>71</sup> "Bronze Disease." *Archaeologies of the Greek Past*. (2007).

However, a cure is predicated on the existence of a disease in the first place, and this fuzz was only a disease to those who saw something to lose.

To the bronze itself, it was a return. The compounds created in this reaction were organic, composed of sulfates and chlorides deposited from particles in the air and precipitation. These compounds were unraveling the metal, reacting with traces of tin and copper.<sup>72</sup>

*(A similar anxiety surrounds the reaction of acid rain on marble forms — the acid dissolves the calcite in the material, releasing the silicate forms that comprise it, literally allowing the stone to soften, wash away with the water).<sup>73</sup>*

Bronze, originally thought of to be immune to nature and “the ravages of time,”<sup>74</sup> was happily welcoming that nature in. Allowing it to unmake it, re-make it. This reaction, then, was a movement into a different kind of molten state, not one in which it would bend to the will of those wishing to imbue it with a possessing spirit, but in which it could grow some life of its own.

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Though the original idea for the monument was conceived around 1915, Mount Rushmore would not be completed until nearly 30 years later in 1941, partly because the mountain itself resisted carving.

Borglum, trained in professional monumental stone carving, devised a system of scales. The hope that the faces of the founding fathers would emerge from the rock was scaffolded by Borglum’s reliance on proportions, on degrees of rotations and golden ratios. The architect assumed that nature would help him: “I’m building everything according to the compass and the sun.” He saw the sun as an actor’s spotlight, envisioning “the gold of the setting sun, now clear to the Southwest, [would] touch [Washington’s] right cheek.”<sup>75</sup>

However, as Taliaferro remarks in *Great White Fathers*, “on the mountain, geology had a way of confounding geometry.” The face of the mountain was lumpy, as it was made of “not one single mass of granite but numerous gigantic lobes of rock—float blocks—pressed tightly together like mutant cloves of garlic,”<sup>76</sup> a structure leftover from the materials pressed together during the mountain’s tectonic formation. The men tasked with construction, suspended from cables and knocking against the hard rock face at the slightest breeze, stood at risk of dislodging one of these float blocks and causing a landslide that would compromise the mountain’s carve-ability.

Borglum had to contend with another resistance unique to the medium he chose: because he was carving a mountain, his work would be impeded by the elements. “The weather grew so

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<sup>72</sup> Basso, “The *Samuel F. B. Morse* statue in Central Park.”

<sup>73</sup> Blaettler, Karen. “The Effects of Acid Rain on Monuments.” *Sciencing*, November 22, 2019.

<sup>74</sup> Townsend, “BATTLING THE BRONZE DISEASE,” 17.

<sup>75</sup> Borglum quoted in Taliaferro, *Great White Fathers*, 229.

<sup>76</sup> Taliaferro, *Great White Fathers*, 231.

unmercifully awful that at the beginning of December, [the construction team] was obliged to shut down for the winter.”<sup>77</sup>

The mountain, situated where it had always lived, familiar with and welcoming to the effects of weathering, wind, precipitation, and erosion, seemed to have the higher ground.

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There’s a phenomenon surrounding Carrara marble known by quarry workers as “the exploding block of marble.”<sup>78</sup> Those transporting the stone from the quarry would often check their truck beds to find it had begun to completely fall apart at the edges, crumbling into a fine powder that glinted like crushed glass.

Geologists conclude that this disintegration is due to a massive release of stress on the tightly compacted crystals, triggered by the marble’s removal from the quarry wall. “In essence, the stone was stretching after being released from its millions of years of squeezing.”<sup>79</sup> The act of quarrying exacerbates this phenomenon, making the marble more prone to “explosion” and the quarry walls unsafe to work, threatening to bring the whole industry crumbling down. All because the material decided to stretch, to relieve stress, to return to the calcite powder from which it was formed.

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A similar relaxation nearly led to catastrophe on December 26, 1979, when one of the 44,000 300-pound exterior marble panels of the Standard Oil Company’s Chicago headquarters broke from its facade and plummeted 82 stories, colliding with a building across the street. Two months later, another panel dislodged and crushed a parked car on the street below. The building, fitted with this 83-storey tall exterior curtain of Carrara marble panels shipped from Italy for pure aesthetic, had not been open a year before cracks and convex bending had formed on over 2,000 of its panels.

The cause? The marble had “weakened” with the weather, a “thermal cycling”<sup>80</sup> that warped the material. Ironically, the building’s architect, Edward Durrel Stone, was said to have chosen marble to emulate “the classic purity of the all-white building...an ageless material.”<sup>81</sup> However, it seemed as if the marble was aging, expanding and contracting in its skin to create cracks and wrinkles.

Michelangelo, one of the first sculptors to bring monumental marble architecture to Italy, said that his biggest challenge was “resisting gravity.”<sup>82</sup>

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<sup>77</sup> Taliaferro, *Great White Fathers*, 232.

<sup>78</sup> Williams, *Stories in Stone*, 172.

<sup>79</sup> Williams, *Stories in Stone*, 172.

<sup>80</sup> Williams, *Stories in Stone*, 154.

<sup>81</sup> Williams, *Stories in Stone*, 153.

<sup>82</sup> Michelangelo quoted in Williams, *Stories in Stone*, 159.

Suspended nearly 900 feet in the air, the marble did what felt most natural — it returned to the earth.

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These materials, lauded for their permanence, agelessness and immovability, in reality carry within them the flux of eternal, shifting change. Their histories are crushing, squeezing pressure, enough heat and energy to make anything molten, make anything move.

Western materiality posits that, if something is not “living” in the strict, breathing, human sense, it must not possess any of the qualities that distinguish life—movement, desire, change. However, these instances make it clear that these materials have been imbued with a propensity towards entropy, a pull to the earth, a cycle of becoming that does not end on humanity’s terms, does not end once the statue has hardened or the chisel lands its final blow.

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The Non-Western theoretical lenses we have examined recognize these histories, the energy and flux latent in these materials. These materials want, they stretch, they cultivate, they shift and slide and constantly return to their sources. Here is where these material histories become clear—in the ways they change, in the resistances they mount against their own prescribed materiality.

Don’t believe me? In the words of Tim Ingold, I suggest you go find a stone.<sup>83</sup>

8) *Open your hand. The stone is warm.  
Set it on the place where the hole once was. Still is.*

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9) *Go inside. Look at your empty palm.*

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*Does your hand look different?*

*Does it feel colder?*

*Does it feel lighter?*

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<sup>83</sup> Ingold, “Materials Against Materiality,” 1.

*Is it empty?*

*What are you still holding?*

—

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*for their love, presence, and nurturing care*

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To the **marble flats**, the **bronze forge**, the **dirt**, the **rocks**, the **volcano**, the **rain**, the **sea**, the **mountain**, the **tectonic plate** — for making, unmaking, and re-making us all