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Rockhounding, Seafaring, and Other Material Tales for the End of the World

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Figure 1. Noémie Fortin rockhounding on a beach in Normandy, France. Photo credit: Vincent Beaulieu

> This is how it is with objects. They are mute about their journeys, though most of them have traveled much farther than any of us.
> —Kirsty Robertson, "Plastiglomerate: A Provocation" (60)

As far back as I can remember, I have always collected rocks.

As a child, I could spend hours looking for new additions to my collection—foraging beaches, woods, and roadsides—carefully selecting the specimens that caught my eye for aesthetic qualities such as vibrant colours, intricate patterns, and peculiar shapes. I brought them back home to store in drawers and shoeboxes, quietly waiting to be uncovered again and again. I was not interested in trying to sort and identify them, rather to cherish them as a recollection of our encounter. On top of the diversity of sensorial characteristics inherent to the rocks in my collection, I was fascinated by the stories embedded in each of them. I would speculate on their origins and imagine the journeys they had taken before we crossed paths.

I am a very sentimental collector, motivated not only by aesthetic pleasure, but also by emotional attachment and connective memory. Whether as a marker of a small moment or of a bigger milestone punctuating my life, each rock reminds me of my personal experience of a particular place at a given moment. Each of them has stories to tell: the small pebbles collected from the creek behind my childhood house in Lac-Drolet when I was eight; the pointy rock that looks like a steep mountain which I carried down Mont Mégantic and rediscovered in my raincoat pocket last fall; and my birthstone—a sparkling green olivine—which I found at the top of a volcano and now wear around my neck.

I never stopped collecting rocks, but I was never dedicated enough to call myself a true *rockhounder*.

My ongoing interest in geological specimens has been driven predominantly by the sense of place and time they carry with them; I take little account of their composition. I have always felt that each rock in my collection came with a history, acting as a vector to a genuine or imaginary past, but I never really envisioned the futures they could suggest. This conception shifted when I first heard of *plastiglomerate*, a type of stone made up of natural sediments and debris held together by molten plastic (Jazvac 13). The existence of this rock-like substance directly evidences the recent history of human-made materials and their accumulation, but plastiglomerate also has strong implications for the future of geology and, more broadly, of life on earth.

Figure 2. Kelly Jazvac, *Plastiglomerate*, image of a plastiglomerate sample, 2014. Photo credit: Jeff Elstone

Plastiglomerate

In 2014, artist Kelly Jazvac co-authored a scientific manuscript with geologist Patricia Corcoran and oceanographer Charles Moore, detailing their research on plastiglomerate, "an indurated, multi-composite material made hard by agglutination of rock and molten plastic" (Corcoran et al. 5), which they first observed on Kamilo Beach in Hawaii. Since then, plastiglomerate has been sampled on various sites around the globe. Their research findings indicate that the "anthropogenically influenced material has great potential to form a marker horizon of human pollution, signaling the occurrence of the informal Anthropocene epoch" (Corcoran et al. 4).

The theory of the Anthropocene was introduced in 2000, by Nobel Prize-winning scientist Paul Crutzen, to suggest the advent of a new geologic epoch characterized by the increased presence of anthropogenic markers in the earth's systems (Trischler 321). Originally, it mostly supported theories of global environmental issues such as climate change, atmospheric pollution, and other potentially apocalyptic scenarios brought about by human activity. Since then, the controversial term has not only been used by various scientists and scholars to signal

the indelible human impact on the ecology of the earth, but has also been appropriated by activists and artists alike to enable a critique of human-led environmental impact, and to prompt us to imagine alternative futures.

In the face of accelerated environmental degradation and climate instability, the future of the earth and of all life on it is increasingly difficult to visualize. The overutilization of catchall terms like *Anthropocene* and *human pollution* predominant in environmental discourse can contribute to the euphemization and generalization of significant specific concerns. Sensational terms have been used to draw attention to the aforementioned theory: the *Age of Plastic* (Zalasiewicz, qtd. in "Human Impact") and the *Human Epoch* (Baichwal et al.) put forward a tale of human-wide culpability, symptomatic of consistent failure in the stewardship of the environment. It is an established fact that the climate is changing. Consequently, ecosystems are prone to switch into an unprecedented state of degradation and to enter a cycle of unforeseeable alterations. Planetary resources are being depleted, and new rocks like plastiglomerate are starting to surface (Bourg 142). But to encapsulate all these and many other issues under overarching terms such as *Anthropocene* flattens a very complex, multi-effect, non-linear storyline that will continue to unfold over an extremely long period of time. In tackling these problems, the media through which we discuss them are just as important as the specific actions we take to address them. For the sake of meaningful collective thinking on an array of issues pertaining to climate change—from modifications in the composition of the earth's strata to the prevalence of plastic waste in the oceans—it is crucial to complicate the narrative.

Or should I say the narratives?

Complicating narratives is just what Kelly Jazvac does when she presents plastiglomerate specimens as artworks in and of themselves. By inserting such objects into the realm of art, Jazvac draws attention to their inherent meaning as both proof of plastic pollution and inquiries into future potential scenarios. Displacing the objects in this manner activates their affective and pedagogical potential, allowing for gallery visitors to experience them without external mediation. It then becomes possible to grasp the level of entanglement between natural and artificial materials, and analogously between the permeable concepts of human and nature. The fact that plastiglomerate was first a topic of scientific research— which might contribute to the relative dating for the start of the Anthropocene epoch—further complicates its meaning and presentation as an artwork. It might seem counterproductive to argue for alternative narratives only to focus on the very material which has helped reinforce the prevailing theory I am trying to debunk. However, plastiglomerate is an ideal substance to make visible the specific issue of plastic pollution, which is too large and global to understand without powerful visual evidence. As Kirsty Robertson writes in a recent essay, the story it tells as an artwork is significantly distinct from the one it puts forward as a scientific specimen:

> [Plastiglomerate] is akin to a remnant, a relic, though one imbued with very little affect. As a charismatic object, it is a useful metaphor, poetic and aesthetic—a way through which science and culture can be brought together to demonstrate human impact on the

> beach. Thus, to understand plastiglomerate as a geological marker is to see it as unchanging. To make it art is to add an affective element, to bring to it a glow, an aura of the deep Pacific, the human touch, preoccupation with the anthropos, a narcissistic reflection in solid geologic form . . . . The readymade geologic being of plastiglomerate offers ample opportunity for analysis. As an object it speaks to more than pollution. It can be used to instigate conversation on pollution, yes, but also on geology, the long time of earth, colonization, human-animal knowledges, currents of water, and the endless unfolding and collapse of life on earth. (63-64)

Figure 3. *Kelly Jazvac: Plastiglomerate*, installation view at the Eli and Edythe Broad Art Museum at Michigan State University, 2018. Photo credit: Eat Pomegranate Photography

It is relevant to consider both senses of plastiglomerate—as geological specimen and as ready-made sculpture—when attempting to propose divergent narratives. Many stories could be told from the same piece of rock, depending on whether it is seen as an art object, a scientific sample, a poetic metaphor, or something else altogether. The composite material is comprised of a number of things—sand, ropes, fish nets, lighters—each carrying their own stories of extraction, production, consumption, and abandon, which have amalgamated to form a new compound. As Robertson argues, "[plastiglomerate] is evidence of numerous journeys. But it remains in some ways mute, waiting for stories to be applied to it" (62).

Artist-Activists in Conversation with the Anthropocene

In her work on plastiglomerate, Kelly Jazvac participates in debates pertaining to the fields of science (notably geology, oceanography, and ecology), of visual art (when presenting the objects among other artworks), and of museology (with questions regarding the conservation of the samples in natural history museums). She simultaneously acts as an artist and an activist, advocating for greater awareness about global plastic pollution. Numerous artist-activists play a key role in imbuing the fight for environmental justice with emotional *pathos* in the same manner. This article focuses on two collaborations between artists and geologists pondering Anthropocene theory, and a third collaboration that connects art and geology with maritime crafts that make use of plastic debris. These projects offer different scenarios in which to experience specific environmental issues through objects and their materiality. The protagonists in these stories are not humans but *things*: they are part finely crafted objects, part waste materials, and sometimes both at once. By shifting the narrative away from a dominant human figure in order to equally consider nonhuman agency, artists and their collaborators work together to conceive alternative futures. To this end, they suggest a compilation of material tales highlighting environmental issues, with stories of plastic rocks that have travelled the oceans, and of aluminum nuggets panned from the River Thames. They do so by cumulating gestures of making and collecting as a strategy to cope with our current epoch and to imagine its unfolding into the future.

Craft in the Anthropocene

> The anthropocene . . . invites us to imagine a world in which an alien geologist from the future detects in the strata of the ground evidence of the presence of humans long after we have gone extinct. This science fiction-like character of the concept of anthropocene opens up to a retrospective reading of the current moment, a "paleontology of the present" in which humans themselves have become geological sediments or ghosts. —Nils Bubandt, "Haunted Geologies: Spirits, Stones, and the Necropolitics of the Anthropocene" (G135-36)

This "alien geologist from the future" is exactly what self-proclaimed material teller Yesenia Thibault-Picazo emulates in her ongoing project *Craft in the Anthropocene*. In this speculative work, she uses geomimicry processes to create material tales based on scientific research. For this project, she collaborated with acclaimed geologist and chair of the Anthropocene Working Group of the International Commission on Stratigraphy, Jan Zalasiewicz. Emerging from conversations with Zalasiewicz about what type of substances could possibly be sought-after by a new filiation of prospectors, Thibault-Picazo explores materials of her time to speculate on the formation of novel rocks.

Figure 4. Yesenia Thibault-Picazo, *Anthropogenic Specimen Cabinet*, image of a sample from the collection, 2013. Photo credit: Yesenia Thibault-Picazo

Together, Thibault-Picazo and Zalasiewicz imagine hypothetical materials which could be mined in a far future based on true anthropogenic events. Thibault-Picazo addresses specific environmental concerns through craft practices for the creation of the *Anthropogenic Specimen Cabinet*—a material library of speculative geology—as well as practical objects which envision how these potential materials could be used by future craftspersons. In contrast with Jazvac's presentation of plastiglomerate as a novel substance resulting from past and present actions, Yesenia Thibault-Picazo's fictional rock collection reverses the storyline, looking into the future to speculate on substances that could emerge from the entanglement of anthropogenic and geological forces. She then pushes the story further and tries to foresee what *things* humans could make with these future materials.

When developing tools intended for future craft practices ("the manifestation of human empowerment over materials, and more broadly over nature" [Thibault-Picazo 36]), Thibault-Picazo considers a crossover between human and nonhuman narratives. She intends for the objects to stand at the forefront of the story and intentionally keeps the presence of an anonymous human figure in the background. Along with the future geology specimens, she has created three objects around speculative scenarios based on real anthropogenic facts: a pestle

made out of Cumbrian Bone Marble,[1] a mortar made out of Pacific Plastic Crust,[2] and an aluminium vessel.[3]

Figure 5. Yesenia Thibault-Picazo, *Craft in the Anthropocene*, three objects/scenarios: a pestle made out of Cumbrian Bone Marble, a mortar made out of Pacific Plastic Crust, an aluminum vessel, 2013. Photo credit: Yesenia Thibault-Picazo

This fictional tale told by speculative materials highlights how relations between humans and nature might be shifting, while suggesting potential unfolding for craft practices in a far future. As more than a stark visualization of the theory of the Anthropocene, this project evokes possibilities by suggesting a near sci-fi scenario which originates in real facts, sourced from a fruitful collaboration between an artist and a geologist. Thibault-Picazo hopes that "Through the mean [sic] of materiality, these future fossils allow an audience to contextualise the premises of the Anthropocene theory and project the impact of current activities in the long term" (Yalcinkaya).

Gyrecraft

> The perpetual movement of the earth, the tide, and winds produces ocean currents that act at surface and depth in roughly unchanging patterns over thousands of years,

[1] Cumbrian Bone Marble results from the 2001 Foot and Mouth disease in Cumbria, North West England.
[2] Pacific Plastic Crust constitutes a material/scenario depicting plastic as one of the most sought after mineral of its time, which would originate from the prominent plastic pollution in the Pacific Ocean.
[3] The aluminium vessel reflects on the prolific aluminium industry and its spillage in the River Thames.

> affecting land temperature, the movement of water, and now, the movement of pollution detritus. The same currents that are used by the shipping industry to map the fastest passages across the globe, that opened the world to the age of plunder and colonization in the fifteenth century, currently churn the detritus of that system into smaller and smaller fragments of microplastic.
> —Kirsty Robertson, "Plastiglomerate: A Provocation" (60)

Figure 6. Studio Swine, *Gyrecraft*, plastic samples collected from the ocean, 2015. Photo credit: Petr Krejčí

Plastiglomerate samples described by Kelly Jazvac, Patricia Corcoran, and Charles Moore in 2014 probably started their journey thousands of miles away from Kamilo Beach, somewhere on the other side of the Pacific Ocean, with a manufactured object which was deemed waste material and then tossed in the trash. On its way to the landfill, it somehow slipped and ended up into the ocean, where it got swept away by strong currents. From there, it joined a plethora of other objects at different stages of degradation. Some of them made it all the way to the Hawaiian archipelago and landed on Kamilo Beach. Once there, they remained on the sand for a while, before humans came by and attempted to get rid of the debris covering the land by starting a bonfire (Corcoran et al. 4). From this fire, the objects merged with other materials, some more natural than others. Sand, rocks and other sediments became one with the plastic detritus: they became plastiglomerate. In her essay, Kirsty Robertson summarizes this process: "In short, there is a lighter, there is a beach, there is an ocean, and now there is a fire, the catalyst. And from the catalyst, comes plastiglomerate" (61).

Figure 7. Studio Swine, *Gyrecraft*, object representing the North Atlantic Gyre made, 2015. Photo credit: Petr Krejčí

If some of the debris swirling in the North Pacific Gyre—one of the five major oceanic currents in the world—made its way to Kamilo Beach, millions of other objects like it got caught in the Great Pacific Garbage Patch. Brought to the attention of the public in the late 1990s by Charles Moore, The Patch constitutes "a vast array of plastic debris associated with both marine and terrestrial environments" (Moore). In an attempt to cope with this problematic situation, and to draw attention to the global issue of plastic pollution in the world's oceans, the art collective Studio Swine embarked on a journey to retrieve and repurpose what they could collect from the water. Sailing from Azores to the Canaries, they used a machine called the Solar Extruder directly on the boat to melt sea plastic using solar power.

> In the swirling gyre, most of the plastics have broken down into tiny fragments which are spread over massive stretches of the ocean. Due to their size, they are incredibly difficult to recover in any large quantity making this once disposable material very precious. The 5 objects represent the 5 major ocean gyres. (Franklin and Till 236)

Studio Swine produced five objects from the plastic waste that was collected, each representing a major ocean gyre and referring to the tradition of maritime crafts and making at sea. "Within each design the team would consider not only the material content of the piece, but also the craft that could appropriately be employed in the vicinity of each gyre. The result is that each piece has a unique identity reflecting its geography" (Franklin and Till 236). For instance, the object created in relation to the North Atlantic Gyre is a testimony to the decorative craft of

scrimshaw. This practice originated in the nineteenth century among whaling crews. Born out of boredom during sea voyages, as crews waited for the next whale to emerge, scrimshaw is the art of carving designs—mostly scenes of life at sea—on the share of whale's teeth sailors were allotted after a catch (Linsley). Getting their inspiration from this practice, which is now practically extinct, Studio Swine collected, sorted, and melted white plastic particles from the ocean to create a shape resembling a whale tooth, which they carved and mounted on a wooden base. Along with the four other objects of the collection, the piece made of detritus retrieved from the ocean represents a proof of plastic pollution turned into a re-valued decorative object.

Figure 8. Studio Swine, *Gyrecraft*, object representing the North Atlantic Gyre, 2015. Photo credit: Petr Krejčí

The Role of Art, Science, and Storytelling in Environmental Activism

All rocks have stories to tell, stories like the ones I imagined when I was a kid, like the ones entangled in a plastiglomerate specimen, or like the ones a geologist can read in a simple pebble. For instance, Jan Zalasiewicz recounts grand scenarios from observing a rock:

> Every pebble is full of ghosts. Like fossil fuel, the building blocks of every pebble are constituted—in addition to minerals—by a complex of amorphous organic matter, traces

> of the ancient and strange biology trapped within . . . . [Zalasiewicz] is interested in the ghostly contours of life in stones not merely because they are tell-tale remnants of a past but because stones allow him to dream of a different future at the brink of disaster, a future in which livelihood and good fortune do not come at the expense of devastation and death. (Bubandt G136)

For the artists discussed in this article, these stories are suggested in the very materiality of the objects presented. They are embedded in the rocks, in the waste materials, and in all the *things* made and collected by the artists. They are stories about past, present, and future epochs. Stories about anthropological and geological time glued together with plastic particles. Stories of the Anthropocene, of climate change, of plastic invading oceans and land, and of changing ecosystems. Stories of making, of adaptation, and of imagination that put forward ideas of care and preservation. They exist simultaneously in multiple registers of meaning, as art subjects, as scientific specimens, as decorative objects, and as potential science-fiction props.

Through processes of recollection and speculation, the artworks discussed in this article bring us along on their journey, going beyond the mere visualization of an environmental crisis—and analogous theorization of the Anthropocene—and joining forces to raise awareness about pressing issues.

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Her current research explores the potential for arts and cultural institutions to intervene directly and locally in larger questions of landscape and collective stewardship in the wake of global environmental crisis and change. Her master’s thesis looks at contemporary place-based and socially engaged art projects that took place in small towns and rural settings in Canada.