

# VISUAL TECHNOLOGIES OF TRANSLATION: THE PERSONAL SLIDE VIEWER IN THE TWENTIETH CENTURY

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Cameras and slide decks from the past 50 years are piled high on the shelf beside my office in the Pacific Museum of Earth. It was in this mountain of analog technology that I found a yellow and red box with “Oplen Model II” emblazoned on its side. In this box was a personal slide viewer that once belonged to the late Dr. Ted Danner of UBC’s Geology Department. I picked up the slide viewer, fitting it between my two hands, and peered inside—its dark interior looking like a theatre before the lights go up. I slotted in one of the accompanying slides and suddenly that empty space was illuminated with images of geological formations, mountains, and rock faces. Looking into this glowing box, no heavier than my phone, I was immersed in visions of our planet and became a spectator upon a world I was simultaneously a part of—both distanced by the medium of the device and immersed in its glowing reality and tangible weight in my hands. Environmental media theorist Jussi Parikka writes, “It is through and in media that we grasp earth as an object for cognitive, practical, and affective relations”<sup>1</sup>—through the slide viewer, I grasped the earth in my hands, saw its structures, and was made to determine my relationship to it through the media device.

The way in which we use visual technologies to capture our planet—from the camera obscura’s use in landscape painting to the iPhone’s panoramic camera—has changed in tandem with the turnover in dominant paradigm of how individuals understand their relationship to the Earth. This essay will draw on the two modes of envisioning the planet through media defined by Eva Horn, scholar of the visual culture

of the Anthropocene. The first mode is what Horn calls global vision or a modern vision, which externalizes the viewer and positions them as objective spectator.<sup>2</sup> The second is anthropocenic planetary vision, in which the human is inseparable from the world they inhabit.<sup>3</sup> Global vision positions the spectator as a surveyor over a world they could grasp, which is brought down to their scale, and in which humans and nature are distinct categories interacting only through this dominating power relationship. Planetary vision, in contrast, is the experience of no longer being able to detach the human from the Earth and instead one in which the viewer is immersed in a world that surrounds them entirely. For example, as the climate crisis progresses a view of humans as a part of a larger earth system, an anthropocenic view, is unavoidable.<sup>4</sup> As this essay will demonstrate, it is these two modes of viewing the earth that collide in the visual technology of the personal slide viewer.

The handheld slide viewer was ubiquitous throughout the twentieth century, with brands such as the View-Master becoming a household name. These devices were typically small enough to hold in two hands and took on a form in which the viewer looks into dark interior space arranged to draw a direct line from the viewer's eyes to the image—like a theatre is constructed around the eyelines of its spectators. The device, like blinders on a horse, isolates the viewer from the external reality, instead completely overtaking the spectator's vision with its own contents. This form is mirrored in a variety of visual technologies, including those nineteenth century devices that could be read as the slide viewer's predecessors, such as the magic/optical lantern—an early form of projection technology that employed glass plates, not unlike slides. I argue that the slide viewer's resonance with and divergence from these formal qualities of earlier visual technologies tell us about the “dominant discourses of knowledge, vision, and subjectivity” from which this device emerged.<sup>5</sup> The personal slide viewer provides a cross-section into a long history of individuals negotiating their relationship to the earth through visual technologies. The twentieth century slide viewer is a device which

attempts to translate between what Horn calls the “global”—a detached and dominating mode of seeing the earth— and the increasingly unavoidable anthropocenic “planetary” view, in which humans “no longer find themselves standing over and above a world of objects but rather caught in the midst of things.”<sup>6</sup>

The common image of a human relationship to the earth since the Early Modern period, established through genres such as landscape painting and reified through the “objectivity” of the natural sciences and their taxonomizing of the world, positions the viewer as an objective surveyor over a natural world to which they do not belong. One can see the persistence of this visual paradigm exemplified in the increasingly diverse forms of visual technology from the second half of the nineteenth century—from the panorama to the microscope. Just a few examples of these technologies include the kaiserpanorama, the stereoscope, and the optical or magic lantern<sup>7</sup>—all of which place the image in isolation from an external context and the viewer in an exterior, separated space. The optical lantern was an early form of slide projector which used glass plates—painted and eventually printed on following the emergence of photography—that could be understood as the predecessor of later technologies which illuminate and project images like the slide projectors and viewers of the twentieth century. The optical lantern was compared in its time to the microscope, elevated as “a means to locate truth through its construction of vision as taxonomic and dissecting.”<sup>8</sup> Through association with a scientific vision that assumed objectivity, the optical lantern came to reflect a detached positioning of the viewer as a mastering spectator gazing upon images projected and divorced from their contexts. As the handheld slide viewer develops in the twentieth century, this externalizing vision which detaches “an image from a larger background” persists.<sup>9</sup> This modern vision—which places the viewer as an isolated spectator looking onto a world contained by visual technologies—produces what Horn calls the globe. The globe, as described by Horn, is the symbol of modern vision attempting to reckon with the disparity between human scale and the scale of the geologic—it drags the earth

down from, “planetary space to a manageable scale” that can be mastered.<sup>10</sup> The twentieth century handheld slide viewer shares formal similarities with the previous devices that position the viewer as an observer capable of capturing the earth from their detached vantage point, and it is in these continuities I argue we see the persistence of “global” visions of Earth in this device.

Global vision—the planet as contained and looked upon—persists into the twentieth century, where it is, at times, amplified. The continuation of representing the earth as an object contained by visual technologies for a spectator is transparent in the first images of the earth taken from space. These images present the planet from beyond its own atmosphere—inspiring infamous media theorist Marshal McLuhan to assert that through these technologies a “new environment” had been created for the earth.<sup>11</sup> McLuhan identified that for the first time rather than the Earth being our environment—or a stage for life to occur—our visual technologies were now capable of capturing the planet in its entirety and became environments for the earth. This ability to view the planet in its entirety perpetuated the global lens, remixed for the twentieth century, which positions the human as separate from the earth.<sup>12</sup> Perhaps one of the most distinctive photographs of the earth from the twentieth century, *The Blue Marble*, depicts the earth floating against the darkness of space. *The Blue Marble* captures the earth in its entirety from an external perspective, demonstrating the continuity of modern global vision, which makes “a clean epistemic cut between a human observer and nature as an observed object.”<sup>13</sup> Photographs taken twenty years prior to *The Blue Marble* at atomic testing sites in Nevada similarly reveal this continuity of the “global” worldview in visual media. These images depict the Nevadan landscape as barren and “compartmentalized from their surrounding ecosystems and broader regional context.”<sup>14</sup> Photographs which showed workers and how their lives played out at these sites were restricted and classified.<sup>15</sup> Lifeless images did not merely present atomic weaponry and its effects on the environment as containable to bolster public faith in the mastering

hand of the American government, but also reflect the paradigm of the earth as contained and separated from the human through visual technologies. The absence of figures in these images of landscapes, landscapes nonetheless exposed to the violent and destructive forces of humanity, evidence this constant desire to separate the human from the planet despite the profound affect we have upon it. The idea of Earth as existing within a container “constituted technologically,”<sup>16</sup> cut off from the observer and yet dominated by their gaze, was a pervasive motif of mid-century opticality, and it is here we can locate the personal slide viewer. It positions the viewer outside the device, looking in at an image detached from any external context within its internal darkness—a form that illuminates the persistence of global vision into the twentieth century.

While this modern global vision of the earth’s seeping into the twentieth century is reflected in the personal slide viewer, the device is equally elucidatory of a shift—from global to planetary, anthropocenic vision—that is accelerated in this period. Eva Horn describes the planetary as “enveloping and enclosing the human and bringing every place and every spatial scale into contact with other places and scales—and it is this quality of the planetary which is imprinted upon the twentieth century handheld slide viewer.”<sup>17</sup> Previous technologies such as the kaiserpanorama—a large, stationary, device in which viewers sit down and peer into an interior viewing space—require the viewer to look into a static object that creates further separation from its contents, a thick medium between viewer and that which they view.<sup>18</sup> The individuals seated at a kaiserpanorama viewing station are inherently separated from the contents they view by the device. In contrast, the personal slide viewer is immersive—both in its tactility and its mimesis of everyday sight. One lifts the slide viewer to their eyes like a pair of glasses, bathed in the glow of the image, and feels the tactility or materiality of the device in their hand. While the slide viewer remains in the act of mediation, once we are immersed in the device and inhabit that internal space with the image, we are once again touching the earth. Through the slide viewer we are no longer separated from the device’s contents but instead, like its

Earth images, become content ourselves.

The slide viewer's mediation between the divergence of human and planetary spaces and scales is further demonstrated in advertisements for the View-Master from the fifties and sixties. These ads provide lists of slide decks the user can purchase, containing everything from space to the American National Parks to baseball players.<sup>19</sup> "Wild Animals," "Children's Stories and Adventures," and "Moon Rockets" appear in the same list in an ad from a 1959 copy of *Boys' Life*.<sup>20</sup> While these images show the Earth as catalogued and contained—a symptom of the centuries-long persistence of the global worldview—one encounters simultaneously the human and Earth brought down to the same scale, mediated in the same way. American baseball players and as the earth as seen from beyond its atmosphere inhabit the same space of the slider viewer; through the device, suddenly humans and the earth are once again reunited with no delineation or distinction between human and in-human nature. Once technology became the new environment for our planet, humanity and Earth were brought into the same space—the space of the device. In these advertisements, and in the form of the personal slide viewer, one can see both the persistence of global vision and its capturing of the planet into something graspable and in-scale with the human. Yet, it is simultaneously clear that through these visual technologies the human and in-human can no longer be held at a distance from one another, forced to make sense of their cohabitation through the anthropocenic mode of the slide viewer.

The personal slide viewer is a media object which allows, as Parikka describes, the "registering" of the earth.<sup>21</sup> Yet, the way this registering occurs is informed by the device's form and its history. The slide viewer emerged from two ways of seeing the earth: global vision, that "scientific gaze from nowhere, a view from a distance, from outside,"<sup>22</sup> and the anthropocenic, planetary vision in which we are "caught in the midst of things."<sup>23</sup> Despite the simultaneous presence of these two perspectives, the slide

viewer should not be understood as a technology caught in transition; anthropocenic aesthetics did not emerge suddenly in the middle of the twentieth century,<sup>24</sup> nor has global vision been extinguished.<sup>25</sup> Art historian Jonathan Crary discusses at length the entanglement of what Horn would call anthropocentric vision and nineteenth century visual culture, and yet, he does not ignore the anthropocenic impulses already present in this period. Crary contrasts Caspar David Friedrich's famous *Wanderer Over the Sea of Fog* with Géricault's *The Raft of the Medusa* and concludes that where *Wanderer* "implies the mastery of a position that transcended local provincial viewpoints and permitted at least an optical appropriation of a natural world that was increasingly being parceled," Géricault's destabilizes this "mastery."<sup>26</sup> *The Raft of the Medusa* presents, for Crary, an "apprehension of the numbing disproportion between the limits of human perception and the implacable otherness of the exterior world."<sup>27</sup> The dichotomy Crary draws between these two paintings and their contrasting representations of human relationships to an exterior or natural world suggests that there is nothing new about the twentieth century slide viewer's project of negotiating global and planetary modes. One can see the dialectic between these visual paradigms persisting to this day in forms such as Google Maps—an app which allows us to contain the world through the device in our hands, and yet which locates, tracks and maps us in turn. The planetary and the global persist and continually cross paths, suggesting there is nothing transitional about the personal slide viewer. Rather, I argue that the personal slide viewer is a translation technology, working between these two different ways of relating the human to the earth as a response to the problem of projecting the earth at the scale of the human individual.

The slides I found in the museum collection were not just images of geological fieldwork—mixed in were family photos. One picture, titled "tow-headed children," stood out to me: it depicts a young child on a grassy hill and massive, ancient mountains in the distance. This contrast between a child, whose life is merely a blink of an eye against

the scale of Earth's history, and those distant mountains, over fifty million years old, demonstrates the crisis of scale the technology of the slide viewer responds to in its two worldviews. The child in this image sits in the foreground, taking up almost half of the composition—clearly its subject—while the blue mountains fade into the blur of the background, suggesting the persistence of anthropocentrism in visual representations of Earth. At the same time, the space of the image is dense and almost completely filled, with the sliver of pale sky in the background offering the only reprieve from a lush visual field of flowers and grasses. Rather than capturing the natural world under the human gaze, the nature in this image seems to enclose the human body—the child's body immersed in nature, not surveying over it. As one looks at this image in the slide viewer, the device creates a space where the human and the earth are coexisting, or at least working out their relationship to one another. Through the slide viewer, the spectator's external position is destabilized, and they too are pulled into its interior space to join that reckoning.

While the personal slide viewer in its form mimics those earlier technologies which presented the earth is knowable from a distant, separated, vantage point, it is also a technology of planetary vision which brings “every place and every spatial scale into contact with other places and scales”<sup>28</sup> —exemplified by Danner's image of a young child contrasted against enormous, millennia-old mountains. It is not clear whether global vision or planetary vision wins out in the personal slide viewer; both seem to take hold at different moments in its form and in the experience of using the device. Yet, what is made clear is that these two modes of viewing the Earth persist and have at times coexisted as individuals continuing to negotiate their relationship to the planet through visual technologies. The slide viewer, positioned against the background of its mid-twentieth century context, is a vision translator reckoning with how humanity has and will continue to relate to a planet that envelops us and yet which we continue to affect so profoundly—two intertwined yet divergent scales crashing into one another. With the







Figure 2: View-Master. "See Major League Baseball Stars." *Boys' Life*, 1952, 68.



Figure 3: "Tow-Headed Children" from Dr. Ted Danner's collection

## NOTES

- <sup>1</sup>Jussi Parikka, "Materiality: Grounds of Media and Culture," in *Geology of Media*, (Minneapolis: University of Minnesota Press, 2015), 12.
- <sup>2</sup>Eva Horn, "Scales I: The Planetary," in *The Anthropocene: Key Issues for the Humanities*, (London: Routledge, 2019), 147.
- <sup>3</sup>Horn, "Scales I," 152.
- <sup>4</sup>Horn, "Scales I," 151.
- <sup>5</sup>Jennifer Eisenhauer, "Next Slide Please: The Magical, Scientific, and Corporate Discourses of Visual Projection Technologies," *Studies in Art Education* 47, no. 3 (2006): 199.
- <sup>6</sup>Eva Horn, "Aesthetics," in *The Anthropocene: Key Issues for the Humanities*, (London: Routledge, 2019), 101.
- <sup>7</sup>Joathan Crary. "Géricault, the Panorama, and Sites of Reality in the Early Nineteenth Century," *Grey Room* 9, (2002): 9.
- <sup>8</sup>Eisenhauer, "Next Slide," 203.
- <sup>9</sup>Crary, "Géricault," 9.
- <sup>10</sup>Horn, "Scales I," 147.
- <sup>11</sup>Chris Russil, "Earth-Observing Media," *Canadian Journal of Communication* 38, (2014): 278.
- <sup>12</sup>Horn, "Scales I," 147.
- <sup>13</sup>Eva Horn, "Air as Medium," *Grey Room* 73, (Fall 2018): 15.
- <sup>14</sup>Andrew Kirk, "Prototyping Natures: Technology, Labor, and Art on Atomic Frontiers," in *Rendering Nature: Animals, Bodies, Places, Politics*, (Philadelphia: University of Pennsylvania Press), 183.
- <sup>15</sup>Kirk, "Prototyping Natures," 184.
- <sup>16</sup>Russil, "Earth-Observing Media," 278.
- <sup>17</sup>Horn, "Scales I," 152.
- <sup>18</sup>Crary, "Géricault," 8.
- <sup>19</sup>View-Master. "See Major League Baseball Stars." *Boys' Life*, 1952, 68.
- <sup>20</sup>View-Master. "New Worlds of Entertainment." *Boys' Life*, February 1959, 2.
- <sup>21</sup>Parikka, "Materiality," 13.
- <sup>22</sup>Horn, "Air as Medium," 15.
- <sup>23</sup>Horn, "Aesthetics," 101.
- <sup>24</sup>Horn, "Aesthetics," 97.
- <sup>25</sup>Horn, "Scales I," 149.
- <sup>26</sup>Crary, "Géricault," 22.
- <sup>27</sup>Crary, "Géricault," 23.
- <sup>28</sup>Horn, "Scales I," 152.

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