Other Side of Blue: A Cyanometer for an Ecological Age

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The cyanometer, a defunct piece of Enlightenment scientific equipment, determined the blueness of the sky. Invented by Horace-Bénédict de Saussure, it was used to gather measurements from different locations around the world as Europe's expansionist mindset took hold. Alexander von Humboldt enthusiastically adopted the cyanometer, and while climbing Chimborazo, the highest mountain in Ecuador, recorded the deepest blue sky ever seen. The reason for this darker shade of blue was his high altitude.

Humboldt was no ordinary 18th-century scientist. Influenced by Johann von Goethe, he insisted that nature should be understood through the imagination as well as through the rational mind. His breadth of thinking allowed him to come up with the idea of the "*Naturegamelde,*" a vision of nature as an interconnected whole. Depicting a cross-section of Chimborazo, it details every plant and animal at the altitude at which it was found, also temperature, atmospheric pressure, humidity, altitude, etc. Providing specific information, it also gave an incredibly detailed overview, and was an interdisciplinary, ecological approach that went against the classification systems that drove the science of the era.

The mountain top is a place where it's possible to 'get some perspective,' and his view of space was defined by ecological complexity. However, the prevailing idea of physical space was that of Descartes's *res extensa* – paradigmatical since the 17th century, and from which we get our modern notion of the perspectival nature of visual experience in general. Rather than a device for painters, perspective had become a means to measure and plot coextension and enabled the European colonisers to navigate the Earth, beginning the global system of capitalism that continues today. This system of measurement left the cyanometer behind, in a scientific cul-de-sac, for quantifying the sky's blueness did not advance rational knowledge or increase profit margins.

This scientific paradigm has led us to this point of ecological crisis. Hannah Arendt understood it as generating "world alienation," whereby the "natural life processes" are endangered.[1] The Anthropocene era that we have now entered is a place where the threads of Humboldt's 'web of life' are unravelling. Arendt's is a cautionary tale of technological dominion that has, as she says, removed, "the shackles of earth-bound experience," and produced a system in which our rationalised vision does not see the problems it has created: Archimedes boasted of locating a point in space from which he could move the earth, but the universalising paradigm that Arendt evokes with this metaphor has resulted in a sense of ecological melancholia to accompany the power and freedom.

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[1] Hannah Arendt, *The Human Condition*, (Chicago and London: University of Chicago Press, 2018)

According to Goethe, blue is complex and contradictory. It contains darkness, and although he sees this as the absence of light, this darkness is an *active* ingredient. Blue can be melancholic, but it is also energetic and powerful.

Rebecca Solnit, another writer drawn by the colour blue, describes it as the "color of distance… the color of solitude and desire," and she quotes Robert Hass, "Longing," he says, "because desire is full of endless distances."[2]

The pull the desired object, whether image, person, place, exerts, is a physical influence, and reminds us that we are connected to the world through the body, even though desire itself often manifests via the image.

A bodily image perhaps.

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The period of painting that came before the invention of linear perspective was a period full of bodily images. 14th century pictorial structures were a unique combination of what Panofsky calls "psychophysiological space", whereby they were underlined by a rational mathematics but located within Aristotelian notions of tactile rather than visual space, and as such orientated toward a haptic rather than optical sensibility.[3] The frescos in the Arena Chapel in Padua carry this tension. Upon entering, it is as though you are moving into a complete world, replete and complex. All is governed by a rich materiality. Emotional realism expressed through a feeling of empathy and affinity for colour and painting process as well as human experience.

What insight or comfort can this work provide for our increasing ecological unease? Can its distance from our own 'world-picture' help repair our vision? How might a cyanometer measure the beautiful blues of the Arena Chapel?

The 'earthrise' photograph taken during the 1968 Apollo 8 mission is an iconic image that invokes Arendt's metaphor of an Archimedean point. Here in the fresco that depicts him in the desert dreaming of new beginnings, it masks the face of Joachim. Dreaming opens up a different beyond to that of charting and mapping and colonising. Perhaps this cyanometer is a portal to a different possibility. It offers a possibility beyond the paralysis of melancholia… To a space that literally exists on the other side of blue.

[2] Rebecca Solnit, *A field Guide to Getting Lost*, (Edinburgh and London: Canongate, 2006) 29-30

[3] Erwin Panofsky, *Perspective as Symbolic Form,* translated and introduced by Christopher S. Wood (New York: Zone Books, 1991)