

Lines of Light: Capturing the Sun in Language

“Earth rolls these houses out into the sun....”

--W.H. Auden, “Early Morning”

Four centuries ago this August, a visionary Italian scientist stood before an audience in Venice to unveil an object that would revolutionize dominant assumptions about the sun. How fitting that our own solar celebrations coincide with the 400th anniversary of Galileo’s achievement, for the solar house, like his telescope, is also an innovative fusion of science, technology, and art with the potential to change the world. The Solar Decathlon parallels commemorative exhibits on Galileo mounted this year by the Institute and Museum of the History of Science in Florence, Italy. Setting his work in the context of humanity’s attempts to comprehend the universe, the curators have assembled examples of some of our oldest cultural artifacts-- cuneiform clay tablets, paintings, manuscripts, and maps, as well as an array of astronomical devices whose scientific significance is matched by their sheer beauty as material objects.

Such collections demonstrate that in antiquity, as in today’s solar creations, no clear demarcation divided science from art. Surveying the myriad representations of the sun through time, we see that from the earliest eras of consciousness and creation the human race expressed its deepest questions, perceptions, and values through solar instruments and images that possessed, simultaneously, scientific, aesthetic, and spiritual implications. Even the briefest overview of this history reveals a perpetual yearning to *grasp*—both to harness and to understand—the power of the sun. And that power became imaginatively intertwined with the power of language. It is no accident that the

word *poet* comes from the Greek root meaning “maker”—a derivation that allies poetry more closely than we might imagine with technology. In reflecting on some of the highlights of that connection, let us consider how perceptions of the sun have informed western literary and cultural traditions and how those traditions, in turn, have helped to shape perceptions of the sun.

Ancient Mesopotamians studied astronomy as early as the fourth millennium B.C.E., interweaving it with a mythology that attributed sacred meaning to solar cycles—rituals of order set to the rhythms of time. The Egyptians too, linked creation to solar powers. Ancient tomb inscriptions and papyrus fragments tell how Amun, the primal creator, revealed himself as Re, the sun god, who suffused dark space with light and called the world into being. Some hieroglyphs also associate the rising sun with the multi-faceted god Horus, represented as a fiery-eyed falcon. Thousands of years later, in one of the finest solar sonnets ever written, the British poet Gerard Manley Hopkins would revive that ancient myth, using it as a symbol of Christ. “The Windhover” figures a soaring kestrel as an offspring of the sun, a “dapple dawn drawn falcon” who is both heir and emanation of what Hopkins calls the “Kingdom of daylight”—his vision of divinity.

Both Mesopotamian and Egyptian myths of origin influenced the Hebrew story of creation recorded in the first chapter of Genesis. There the world arises from the word, like an immense poem, and the inaugural divine utterance that brings order out of chaos is “Let there be light.” Over two millennia after the biblical account, Milton would reiterate that epic moment in *Paradise Lost*, his poetic repetitions reflecting its bedazzling extravagance: “Hail holy light, offspring of Heav’n first born.../Bright

effluence of bright essence increate.” Milton likened this cosmic brilliance to creative imagination: “Shine inward,” he invokes the “Celestial light,” “and the mind through all her powers/Irradiate.../that I may see and tell/of things invisible to mortal sight.”

Classical literature, like the Hebrew scriptures Milton reconfigured, also related the sun to creation and enlightenment. In Plato’s famous allegory in the *Republic*, Socrates compares benighted humanity to prisoners in a cave, mistaking shadows for reality, and depicts true perception as a liberation into daylight. Hellenistic and Roman mythologies conflated the Greek sun god Helios with Phoebus Apollo, the luminous deity of poetry and music (*Phoebus* means “bright”). Poetry began as song, and the lyre that accompanied poetic performance was sacred to Apollo; its echoes linger in our term *lyric poem*. Scientists too would find Apollo a congenial god, for he also represented the light of reason.

In the centuries after the fall of the Roman Empire, classical learning was often driven underground—returned to the cave, we might say. Later Europeans would speak of the “Dark Ages,” yet during this period Chinese, Indian, and Mesoamerican civilizations flourished, evolving intricate conceptions of the cosmos, while Arabic and Persian mathematicians devised brilliant astronomical models of the solar system that anticipated by centuries the work of Copernicus and Galileo. Some, like the eleventh-century Persian astronomer Omar Khayyam, were also celebrated poets, who spoke of sunlight in cadences that still enchant.

In Western Europe and beyond, the sun retained a quasi-divine status throughout the middle ages. In early Slavic languages, as in contemporary Russian, one word –*svet*—signified both “world” and “light”—with linguistic links to sanctification. The cloudy

lands of Britain, cherishing sunlight as a gift, enshrined it in the first day of the week, whose name derives from Anglo Saxon *Sunnandaeg*: “Sun’s day.” Medieval mystics like Hildegard von Bingen sang of God as light, and it seems fitting that the beautiful manuscript volumes in which scribes recorded scripture, chronicles, and poems glowed with gold-leafed figures called *illuminations*. In the *Divine Comedy* Dante lauded the sun as “dolce lume”—sweet light—nature’s “greatest minister,” and associated its rays with divine revelation. Recurrent solar images help shape the intricate architecture of his monumental poem, which culminates in a vision of paradise as a radiating cosmic rose, its dazzling luminescence an expression of “the love that moves the sun.”

Renaissance poets used solar imagery for other sorts of visions—anatomies of desire that fused the sacred with the secular, loftiness with lust. English sonneteers, following the traditions of Dante and Petrarch, celebrated their beloveds as quasi-divine beings whose features glowed with heavenly radiance—a tradition Shakespeare parodied in one of his best-known sonnets: “My mistress’s eyes are nothing like the sun.” Seventeenth century poet John Donne took another playful turn, personifying the sun as a comic meddler who interrupts a glorious night of lovemaking: “Busy old fool, unruly sun, why doest thou thus/through windows and through curtains call on us? /Must to thy seasons lovers’ seasons run?” Donne’s solution to the invasion is to bid the sun to stay, creating a lovers’ version of a solar house: “Shine here to us, and thou art everywhere/this room thy center is, these walls thy sphere.” More seriously, in “The Good Morrow” he compares finding authentic love to awakening at sunrise. And in “The Canonization” he links this luminous state to poetry, imagined as a form of architecture: punning on the word *stanza*—Italian for *dwelling*, *room*, or *stopping place*—he proclaims

that he and his beloved will “build in sonnets pretty rooms,” models of love that will offer future readers a radiant habitation and delight.

For later poets, too, the sun continued to symbolize transcendence. Writing in Mexico in the late seventeenth century, Sor Juana de la Cruz used solar metaphors to describe the soul’s yearnings for divinity. The British poet and artist William Blake asserted that while the impercipient eye saw the sun as nothing but a shiny disk somewhat like a gold coin, the eye of the imagination perceived it as a blazing embodiment of divine possibility. Emily Dickinson, who once proclaimed that she herself dwelt “in Possibility—a fairer house than prose,” also found solar energy a creative inspiration, celebrating “a sun so close and mighty/That our minds are hot.” In *Leaves of Grass*, Walt Whitman rejoiced in the “day full-blown and splendid, day of the immense sun.” And the great contemporary poet Lucille Clifton, playing on the linguistic origins of her own first name, composed a whole volume on poetic vocation and vision called *The Book of Light*.

But many poets have seen the sun in more anxious ways. In *The Rime of the Ancient Mariner* Coleridge’s haunted seafarer, perishing of drought after slaying the beneficent albatross, reads the sun as a relentless blaze of judgment on his violation of the human bond with the natural world. Tennyson, in his vast cultural epic, *Idylls of the King*, figures King Arthur as a manifestation of solar deities and architect of that monument to idealism, the shining city of Camelot, which like the poem itself is “built to music, and therefore never built at all, and therefore built forever.” But ultimately the dream shatters, the city decays, and the sun wanes, turning the world into a desolate wasteland that anticipates T.S. Eliot’s bleak modernist vision in the aftermath of World

War I. In 1921, the year before Eliot published *The Waste Land*, W.B. Yeats also pondered our penchant for self-destruction. In the oracular nightmare of the future he records in “The Second Coming,” the “rough beast” that “slouches toward Bethlehem to be born” has a “gaze blank and pitiless as the sun.” It was a prophecy that subsequent history has rendered only too real.

As these disquieting images suggest, solar stories aren’t all sweetness and light. Anyone who lives in the Sonoran desert understands why both ancient and modern myths recognize the sun’s dangerous powers, which we misjudge at our peril. To be “spotted by the sun,” as Pat Mora puns in her poem “La Migra,” is potentially lethal. Remember Phaeton, son of Helios/Apollo. Bent on proving his claim to divinity by imitating his father, Phaeton stubbornly insisted on driving the chariot of the sun on its daily passage across the sky. The fiery horses, sensing a weak hand on their reins, soon began bucking and rearing, careening off course in precipitous plunges to earth that set forests ablaze, heated the seas to boiling, and seared vast swaths of land, turning fertile fields into deserts. Finally Zeus, to avert a cosmic catastrophe, hurled a lightning bolt that knocked Phaeton from the chariot and sent him plummeting earthward like a falling star.

Phaeton’s downfall offers a cautionary tale not only to adolescents tempted to appropriate daddy’s car, but also to human beings who, through reckless misuse of technology and natural resources, risk destroying themselves and the earth. Reflecting on the fate of such hubris, a host of writers from Wordsworth, Emerson, and Thoreau onward, writers like John Muir, Mary Austin, Rachel Carson, Annie Dillard, Barry Lopez, Wendell Berry, Terry Tempest Williams, or Arizona’s own past and present voices—Joseph Wood Krutch, Edward Abbey, Scott Momaday, Richard Shelton, Simon

Ortiz, Leslie Silko, Joy Harjo, Barbara Kingsolver, Alison Hawthorne Deming, Luci Tapahonso, Gary Nabhan, Ofelia Zepeda—*so many*—all have insisted that to betray our connection to nature is to lose the best elements of our humanity, perhaps to lose our souls.

Myths—like science, technology, and literary styles—change over time, but writers continue to express their visions through images of the sun. I’ve touched on only a few examples, but everyone can recall many others—lines of light that, could we draw them together, would weave a shining tapestry of texts, recording our communal memories as a form of solar power. “The continuous work of the imagination,” writes Barry Lopez, “to bring what is actual together with what is dreamed is an expression of human evolution. The conscious desire is to achieve a state, even momentarily, that like light is unbounded, nurturing, suffused with wisdom and creation, a state in which one has absorbed that very darkness which before was a perpetual sign of defeat.” The words apply to both art and science. They might also describe the mission of AzRISE.

Galileo’s insights appeared heretical in his own day: he was arrested, subjected to the Inquisition, and forced to renounce his discoveries. Yet they ultimately became the foundation for modern science. Contemporary efforts to re-imagine the sun also confront a host of skeptics, entrenched assumptions, and powerful counter-interests—and the stakes are higher than ever. The human race, like Phaeton, has propelled itself to the edge of catastrophe, making the sun a potential destroyer by creating conditions for accelerated global warming that imperil our fragile world. Thus solar power, and the far-sighted vision it represents, is more than a scientific triumph; it is a symbol, poetic in the deepest sense, of hope for the human race and for the planet. It promises what once

seemed impossible: light unbounded, limitless energy that, rather than ravaging the earth and its inhabitants, holds hope for their preservation.

A Note on Sources

Beyond the texts identified in my essay, which represent only a handful of the myriad literary depictions of the sun, the following sources offer useful openings into this vast subject:

See details of the Galileo exhibit mounted by the Institute and Museum of the History of Science at http://brunelleschi.imss.fi.it/galileopalazzostrozzi/index_flash.htm.

For translations of Mesopotamian-Sumerian creation narratives see Stephanie Dailey, ed., *Myths from Mesopotamia*, rev. ed. (Oxford University Press, 2000). UA Regents

Professor Richard Wilkinson treats Egyptian mythology in *The Complete Gods and Goddesses of Ancient Egypt* (Thames & Hudson, 2003). References to Apollo pervade

classical literature, notably in Homer and Virgil; for an overview see *The Oxford Companion to Classical Literature*, ed. M.C. Howatson (1989). The best-known English

rendering of Omar Khayyam is Edward Fitzgerald's *The Rubaiyat of Omar Khayyam* (1859; rpt. Penguin, 1989). Professor Adele Barker provided the etymology of Russian

svet. For Hildegard von Bingen's visions see *Scivias*, trans. Columba Hart and Jane Bishop (Paulist Press, 1990); there are several fine CD recordings of Hildegard's

compositions—e.g., “Canticles of Ecstasy” (Deutsche Harmonia Mundi, 1994). For Sor Juana's texts see *Sor Juana Inés de la Cruz: Selected Writings*, trans. Pamela Kirk

Rappaport (Paulist Press, 2005). Blake's comment comes from *A Vision of the Last Judgment*. Dickinson's lines are from “I dwell in Possibility” and “We like March.”

Phaeton's story recurs in many classical sources, e.g. Ovid's *Metamorphoses*. The

passage from Barry Lopez appears in *Arctic Dreams: Imagination and Desire in a Northern Landscape* (Scribner's, 1986), 371.

