

Other Voices:

Gerard Manley Hopkins and Science Instruction

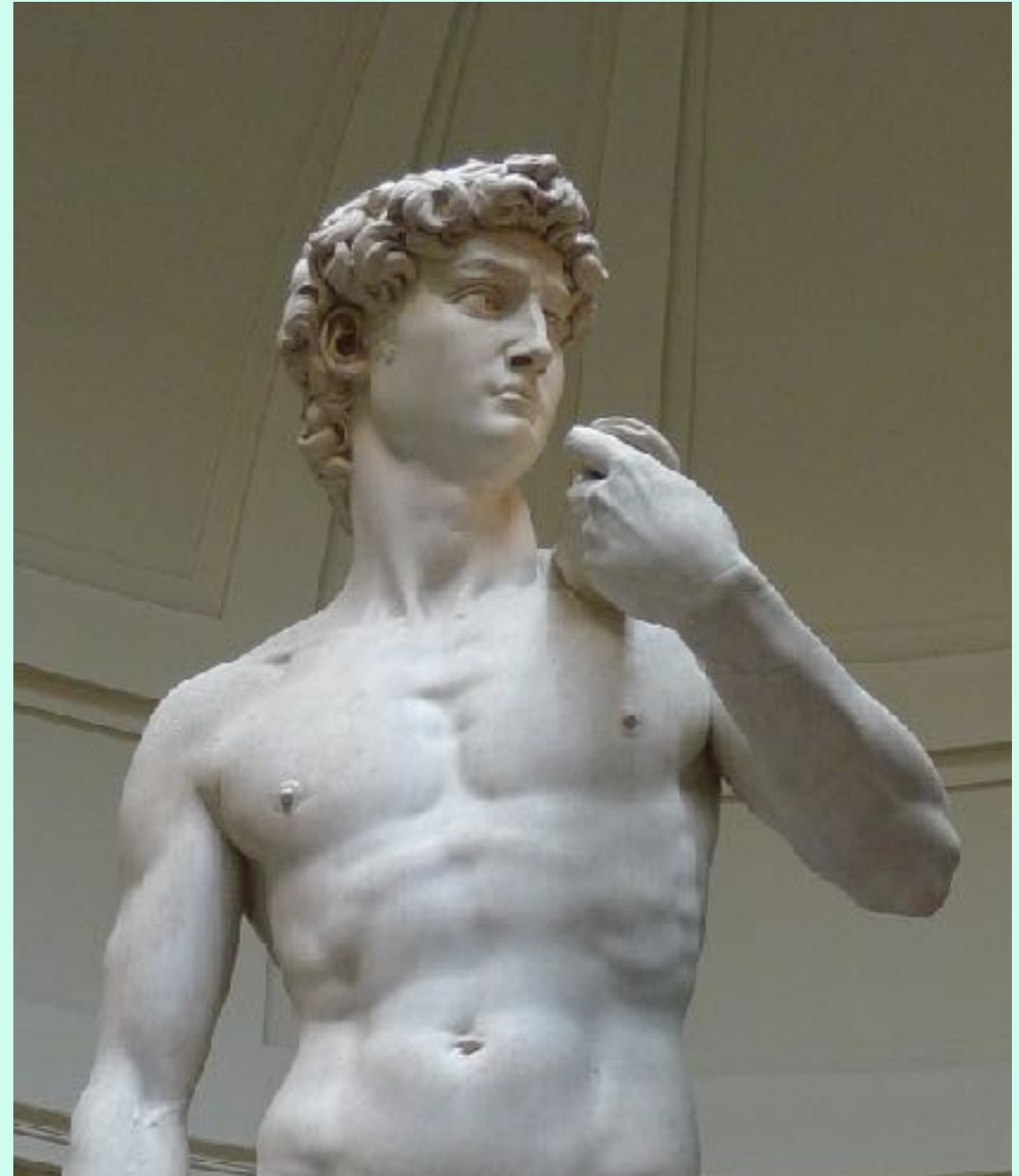
John D. Mays



A good human being: Full of wisdom and virtue

Some “modes of knowing”

- ◆ direct encounter
- ◆ mediated encounter through technical literature
- ◆ mediated encounter through poetic and artistic expression



Encountering Creation through the Mediation of Artists

The Poets

- Gerard Manley Hopkins

As kingfishers catch fire, dragonflies draw flame;

As tumbled over rim in roundy wells

Stones ring; like each tucked string tells, each hung bell's

Bow swung finds tongue to fling out broad its name;

Each mortal thing does one thing and the same:

Deals out that being indoors each one dwells;

Selves — goes itself; *myself* it speaks and spells,

Crying *Whát I dó is me: for that I came.*



Encountering Creation through the Mediation of Artists

The Poets

- Gerard Manley Hopkins

I say móre: the just man justices;
Keeps grace: thát keeps all his goings graces;
Acts in God's eye what in God's eye he is —
Chríst — for Christ plays in ten thousand places,
Lovely in limbs, and lovely in eyes not his
To the Father through the features of men's faces.



Encountering Creation through the Mediation of Artists

The Poets

- Gerard Manley Hopkins

—I am like a slip of comet

Scarce worth discovery, in some corner seen

Bridging the slender difference of two stars,

Come out of space, or suddenly engender'd

By heady elements, for no man knows;

Encountering Creation through the Mediation of Artists

The Poets

- Gerard Manley Hopkins

But when she sights the sun she grows and sizes

And spins her skirt out, while her central star

Shakes its cocooning mists; and so she comes

To fields of light; millions of travelling rays

Pierce her; she hangs upon the flame-cased sun,

And sucks the light as full as Gideon's fleece:

Encountering Creation through the Mediation of Artists

The Poets

- Gerard Manley Hopkins

But then her tether calls her; she falls off,

And as she dwindles shreds her smock of gold

Between the sistering planets, till she comes

To single Saturn, last and solitary;

Encountering Creation through the Mediation of Artists

The Poets

- Gerard Manley Hopkins

And then she goes out into the cavernous dark.

So I go out: my little sweet is done:

I have drawn heat from this contagious sun;

To not ungentle death now forth I run.

Encountering Creation through the Mediation of Artists

The Poets

- Gerard Manley Hopkins
 - ◆ God's Grandeur
 - ◆ Pied Beauty
 - ◆ The Starlight Night

Encountering Creation through the Mediation of Artists

The Poets

- Richard Wilbur

Worlds

For Alexander there was no Far East,
Because he thought the Asian continent
India ended. Free Cathay at least
Did not contribute to his discontent.

Encountering Creation through the Mediation of Artists

The Poets

- Richard Wilbur

But Newton, who had grasped all space, was more
Serene. To him it seemed that he'd but played
With several shells and pebbles on the shore
Of that profundity he had not made.

Encountering Creation through the Mediation of Artists

The Poets

- Richard Wilbur

Swiss Einstein with his relativity—

Most secure of all. God does not play dice

With the cosmos and its activity.

Religionless equations won't suffice.

Encountering Creation through the Mediation of Artists

The Poets

- Richard Ryan

Galaxy

faint

in deep space,

immense as a brain

down

through the thought-

shaft it drifts, a wale

of light to

which the retina

opens and is centered

time and

space dis-

appearing as the mind

Encountering Creation through the Mediation of Artists

The Poets

- Richard Ryan

recedes

to a soundless

flickering somewhere

deeper

than consciousness

where, permanent as

change

a whorl of light

rides, wheeling in darkness

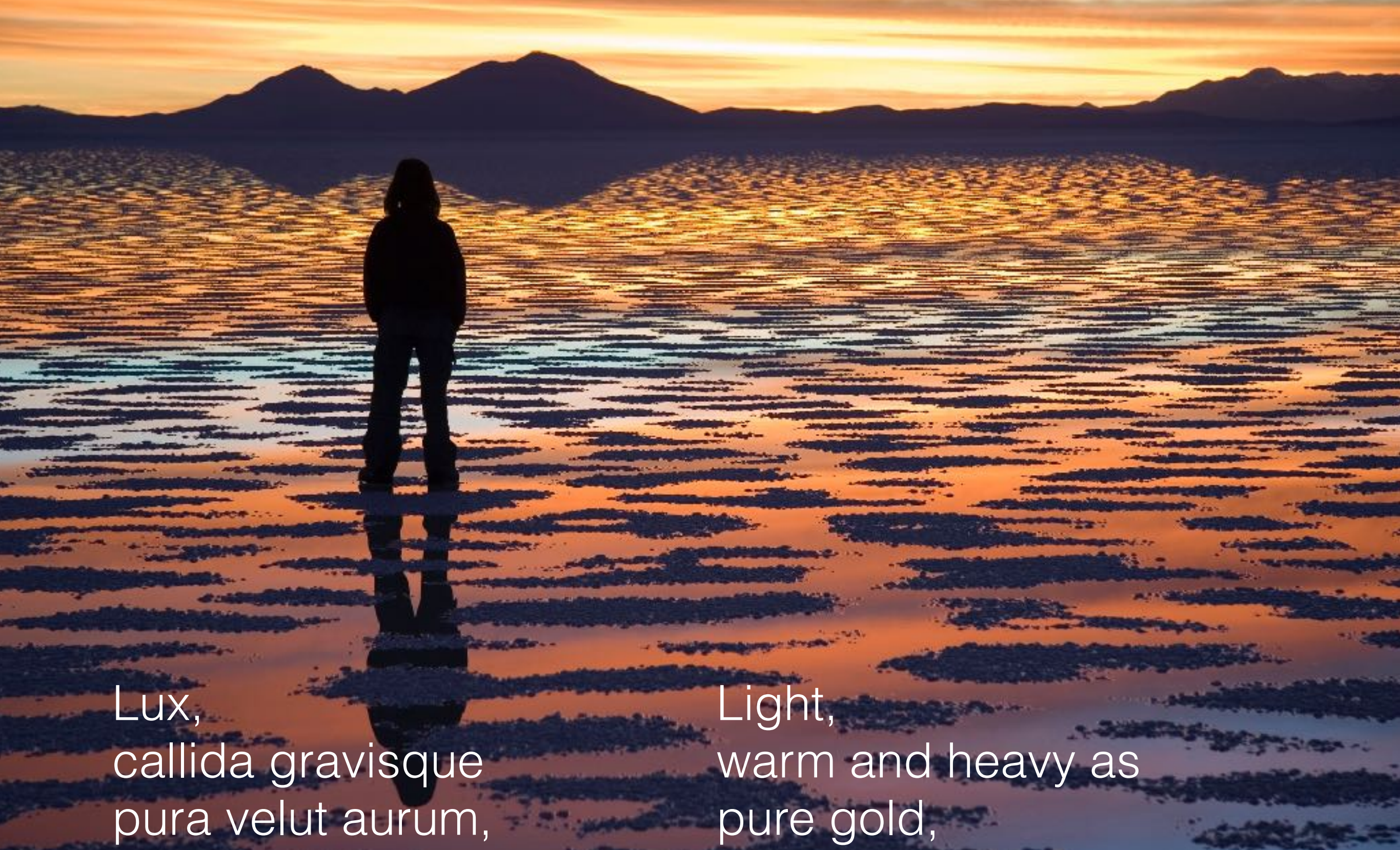
Encountering Creation through the Mediation of Artists

The Composers

- Eric Whitacre
 - ◆ Lux Arumque
 - ◆ Water Night
 - ◆ Cloudburst
 - ◆ Leonardo Dreams of His Flying Machine

All found on

Eric Whitacre, The Complete A Cappella Works, 1991-2001,
Brigham Young University Singers, ARSIS AUDIO, arsisaudio.com



Lux,
callida gravisque
pura velut aurum,
et canunt angeli molliter
modo natum

Light,
warm and heavy as
pure gold,
and the angels sing softly
to the newborn babe

Encountering Creation through the Mediation of Artists

The Composers

- Antonio Vivaldi: *The Four Seasons*
- Ferde Grofe, *Grand Canyon Suite*
- Gustav Holst, *The Planets*

Encountering Creation through the Mediation of Artists

The Painters

- Johannes Vermeer:
The Astronomer (1668)



Encountering Creation through the Mediation of Artists

The Painters

- Jan Matejko: Astronomer Copernicus—Conversation with God (1872)



Encountering Creation through the Mediation of Artists

The Painters

- Vincent van Gogh: Starry Night (1889)



Encountering Creation through the Mediation of Artists

The Painters

- Joseph Wright: An Experiment on a Bird in an Air Pump (1768)



Encountering Creation through the Mediation of Artists

The Painters

- Joseph Wright:

The Alchemist Discovering
Phosphorous, or

The Alchemist in Search of the
Philosopher's Stone (1761)



Encountering Creation through the Mediation of Artists

The Painters

- J.M.W. Turner: Rain, Steam and Speed—The Great Western Railway (1844)



Encountering Creation through the Mediation of Artists

The Writers

- Sam Kean, *The Disappearing Spoon*
- Le Couteur & Burreson, *Napoleon's Buttons*
- Gary Zukav, *The Dancing Wu Li Masters*
- Annie Dillard, *Pilgrim at Tinker Creek* (1975 Pulitzer); *For the Time Being*; *Holy the Firm*; *Teaching a Stone to Talk*
- Vigen Guroian, *Inheriting Paradise*

Encountering Creation through the Mediation of Artists

The Writers

- Wendell Berry: Sex, Economy, Freedom and Community; Life Is a Miracle
- John Graves: Goodbye to a River
- Aldo Leopold: A Sand County Almanac
- Konrad Lorenz: King Solomon's Ring

Encountering Creation through the Mediation of Artists

The Writers

- John Gribbin: In Search of Schrodinger's Cat
- Michael Frayn: Copenhagen
- John Muir: The Mountains of California, My First Summer in the Sierra

Encountering Creation through the Mediation of Artists

The Writers: For Young Readers

- Kathryn Lasky: The Librarian Who Measured the Earth
- Charles Ludwig: Michael Faraday, Father of Electronics
- James Daugherty: Of Courage Undaunted
- John Tiner: Samuel F.B. Morse

Encountering Creation through the Mediation of Artists

The Writers: Waiting for me to read

- Edward Abbey: Desert Solitaire
- Edwin Teale: The Strange Lives of Familiar Insects
- Rutherford Platt: The Great American Forest
- Stephanie Mills: In the Service of the Wild
- David Haskell: The Forest Unseen
- Hugh Aldersey-Williams: Periodic Tales
- James Daugherty: Poor Richard (young readers)

Enhancing the Paideia at Your School

- Teachers: Look for enrichment opportunities
- Teachers: Artwork for your classroom
- Administrators: Encourage “vertical blanketing”
- Administrators: Artwork for your school corridors
- Librarians: Place the Writers’ works in your school library
- Note: You will probably have to choose between the paideia and AP coursework



Encountering Creation through the Mediation of Artists

The Hymnists

- Joseph Seiss (trans): Fairest Lord Jesus
- St. Francis of Assisi: All Creatures of Our God and King
- Maltbie Babcock: This Is My Father's World

Encountering Creation through the Mediation of Artists

The Hymnists

This Is My Father's World—Maltbie Babcock

This is my Father's world, and to my listening ears

All nature sings, and round me rings the music of the spheres.

This is my Father's world: I rest me in the thought

Of rocks and trees, of skies and seas;

His hand the wonders wrought.

Encountering Creation through the Mediation of Artists

The Hymnists

This is my Father's world, the birds their carols raise,
The morning light, the lily white, declare their Maker's praise.
This is my Father's world: He shines in all that's fair;
In the rustling grass I hear Him pass;
He speaks to me everywhere.

Encountering Creation through the Mediation of Artists

The Hymnists

This is my Father's world. O let me ne'er forget

That though the wrong seems oft so strong, God is the ruler yet.

This is my Father's world: the battle is not done:

Jesus Who died shall be satisfied,

And earth and Heav'n be one.

Serious about science.
Serious about faith.

Come visit our booth!

