

JERRY-BUILT FOREVER
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1

We think that all that matters
can't be deep, but chunk-to-
knowledge-chunk in subsurface
veins, and we, mind-armed miners

search/dance to lift earth cover,
free the plan. The world, oh it
waits patiently to be known,
and we do know much: what

the bombardier beetle sprays;
the salts, silts and organics,
the gradients in the Azov
sea; far bangs and dodges

of light in space; how vitamin
B₁₂ twists one pyrrole ring
as it is made. Terra incog-
nita shrunk to the way the birch

bark peels and why he dressed
in white the night he sealed
the garage door cracks and
turned on the engine...

2

This biconcave bialy platelet
of the erythrocyte, the red
heart of the blood, holds the oxygen
carrier, hemoglobin. Four coiled

polypeptide chains, four subunits
changing pairwise twice in the fetus
to let it soak up placental O₂
steadily. Each chain a globular

protein, juxtaposed twining
of helical segments, predestined
kinks, sequences of amino acids
alike in sperm whale and horse,

(continued, with stanza break)

a meander of bonds around
the flat disc that colors all...heme.
the active site, the oxygen binding
site, a porphyrin, iron. Oxygen,

enflamer, winds to a pocket
molded by protein, binds iron, moves
it in consummation, chains
tethering heme tense - a far

subunit feels the first heme's bond
quiver, the chains pull, O₂ binds
easier. Cooperativity, an allosteric
protein. In 1937

not long before the war,
Felix Haurowitz watched crystals
of deoxyhemoglobin
shatter on oxygenation.

3

Beauty whirls rococo
in fussy chains round
the oxygen pocket; beauty
cambers simple - the iron

hub of heme. If God's
plan for all this function
be heresy, at least let
what came, chanced, to be

be best. Heme, myo- and hemo-
globins, vertebrates O₂
transport proteins, subunits'
trim fit link - evolved.

4

Carried by blood, carrying
electrons, life-empowering
oxygen. Elsewhere, in engines
it's sucked into carburetor

(continued, with stanza break)

trains, there to mix with branched
heptanes, octanes, another kind
of feedstock. Sparked, it burns
things in controlled explosions,

a human specialty. And what
thermochemistry says should end
in greening CO₂ and steam, in
incomplete combustion partly

goes to CO, carbon monoxide.
This odorless diatomic tress-
passer sweeps into bronchia, brashly
binding 200 times better

than O₂. A free ride on deoxyhemo-
globin down arteries, right past
cells that long for the other, can't
wait too long before shutdown.

5

So a life ends. That wise blood,
a million years in the making, it
should have fought, that oxygen-
starved blood. But Nature's

a tinkerer, a shanty-town contractor,
filer of mis-fit gears, the original
found artist. In oxygenated
salty soups, lightning-lit, when

molecules swam to be shaped,
and vines groped for the sun, she
took anything that worked, or the first
that passed the million destructions

of her sweet time lab. No white-
coated intelligences to hurry her
or remind her of the carbon
monoxide that was not there.