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from A Poetry Handbook for Mining Engineers

Jolene M. Brink Mrs

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FROM A POETRY HANDBOOK FOR MINING ENGINEERS

By

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B.A., College of St. Benedict, St. Joseph, MN, 2009

Thesis

presented in partial fulfillment of the requirements
for the degree of

Master of Fine Arts
in Creative Writing

The University of Montana
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Creative Writing

from A Poetry Handbook for Mining Engineers

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This poetry collection utilizes A.G. Charleton's *Report Book for Mining Engineers* (Whitehead, Morris & Co, 1908). The original 200-page report book contains questions and blank entries for the engineer to collect information for mine owners planning to sell or acquire property. The poems in *from A Poetry Handbook for Mining Engineers* use the artifact of this handbook—and the unanswered questions in the found text—to interrogate historic language surrounding mining and excavation, as well as material accumulation, alchemical practices, and the tradition of mining in northern Minnesota and the Norwegian village of Røros.

from A Poetry Handbook for Mining Engineers

Jolene Brink

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“The work as it stands merely suggests broad lines for the engineer to follow ... Indeed, the “Questions,” in this book will serve but little purpose unless practically and *thoughtfully* applied, to the requirements of *each* individual proposition.”

— Preface to *Report Book for Mining Engineers* (1908) by A.G. Charleton, A.R.S.M, Consulting Mining Engineer, whose use of italics in the above quote has not been tampered with by the poet

“In giving a course of recent wireless talks, I assumed that my listeners had no previous scientific knowledge of any kind.”

— *The Stars In Their Courses* (1931) by Sir James Jeans, a book stolen from a hostel on an island on the way to somewhere else

PRIMA MATERIA

I felt the world from every angle,
especially below the surface.

I fell through to pull the light back out
and found worms wrapped around the planet.

I could hear the Renaissance dragging her fingers
through the dirt a millennia before she arrived.

I saw the moon boarded by women without wings
and Mandragora root disguised as turmeric
in the grocery store.

I put everything I couldn't taste into a jar
and buried it at the crosswalk where children
wait with their mothers for the school bus.

It's the smell of the dead ones walking
backwards down the stairs before you call them back.

Or, what you can't see behind
wet clouds in front of the sun.

Or, if you keep pulling out your hair,
it's the thing you hope to find underneath.

But I like to think of it as memory
passing from the room before you notice.

from A POETRY HANDBOOK FOR MINING ENGINEERS

Fill in the blank.

The elevation of the mine is..... feet higher than..... and..... feet above sea level.
There are..... species of birds circling the mountain.

Is the property under dispute?

When Cortez arrived Moctezuma gave him gold, women, and clothing.

When the Siphnians forgot their gods Apollo flooded their mines.

Homer had no word for metal.

Is the outcrop of the vein exposed at the surface?

Is the vein an artery, a circumnavigation, a deposit soaked in brine? Is the vein a channel underground or a body filled with vessels? Is the outcrop visible if you block the sun with your hand, if you expose your own vein to the light?

Are white ants or other insect pests common?

See: gold, silver, platinum tucked underground
See: timber comes from rooms comes from ants
See: colonies of white ants mulching cellulose
(check your wooden beams: the damage caused by termites costs southwestern states \$1.5 billion every year)

See: Other things worth \$1.5 billion:
1) payouts to Bernie Madoff ponzi victims
2) funds needed for the U.S. Census Bureau in 2025
3) an acquisition by China's biggest internet company
4) wine stored in an old munitions dump near Bath, English

In Australia scientists are studying termites to discover gold deposits.

See: Proverbs 6:6

Fill in the blank.

In the Mine there are..... tons of ore in sight, having
an average value of..... to children who cannot read.

What is the duty of a miner's inch in this ground?

Ask yourself —

which fracture of rock would you choose,
if you had to choose sides?

What accumulation of history shines more,
the gold on the bottom of Moctezuma's feet,
or Nike Women's Classic Cortez
Leather shoes for \$70.00?

Malinal gave birth, gave Cortez
a country of weeping children
or she translated
her language
in order to save her life.

Which could you choose.

*At any rate, the writer desires to point out
that some of the conclusions present here
were reached a long time ago.*

There are niches in Greek mines where slaves
placed their lanterns.

We built our desire on
tin, nimbus, golden gravel.

Little cartridge of centuries,
there isn't just one tide coming
to turn over your history.

Suggestions to Mine Owners and Purchasers:

See that there are ample reserves in sight
(they beat the ore small)

Select experienced men
(antithesis of nature)

Individualism and energy are fly-wheels of progress.
(the use of native copper
marks the beginning
of every ancient metal culture)

At any rate, can this reduction be effected
in a single operation or gradually?

Oct 22, 1989
St. Joseph, MN

Jacob Erwin Wetterling disappears.
There are cameras with black cords in the mud.
His mother wears a dress with shoulder pads.
Who removes the police tape?

1483 AD

There are two Princes in the Tower.

71 BC

If Spartacus fakes his death
there is nothing to bury him with.

1581 AD

A deck of French playing cards reveal Henry III
holding a fan and the Queen holding the scepter.
The Princes in the Tower are never seen again.

June 30, 2010
St. Joseph, MN

Officials excavate a farmyard near the abduction site.
Items of interest and six truckloads of dirt are removed.
Jacob is not there.

*What stock of tools will be required
for carrying out operations
on the scale being proposed?*

something subdivided the glaciers
something pre-industrial went to sleep
something drained the glacial lake without asking

Begin where Pliny left off
 discussing the long tenure of the earth.
Begin by reinstating the monstrosity
 of basilisks and plastic saints at the bottom
 of a Norwegian fjord.
Begin with the women who sold griffin claws
 disguised as mammoth tusks
 (could you tell the difference?)

Moctezuma's men saw monsters too —
when Cortez fell off his horse
 he split in half.

*To this, however, must be added
any cash or other realizable assets there may be,
and the "present value" of the price that
may be fetched at the end of the mine's life.*

I realize until recently the world's largest lake
was buried under a sheet of ice.

Ask yourself, how would the Nile and Mississippi sound
if you put them together?

If you let them flood a valley where no one is looking?

See: Metallurgy (*not* Melancholy)
See: Tin (*not* Timing)
See: Assay (*not* Assemblage)

The parties will sell..... payable
in..... installments to the nearest star
devouring itself.

Hunger is the Ouroboros biting its tail,
repetition subtle as the water in your veins.
If you're thirsty, drink the quicksilver.
It will make the circle go faster.

Questions Relating To:

*Where has the world's supply
been chiefly obtained (and disposed
and what is the present
estimated world's stock
of metal on hand?*

Fact: the Ploy-Met sulfide mine
is lauded for the economic benefits
it will provide northern Minnesota
for the next twenty years.

(shallow steps, plunge faster)

Quality: the Ojibwe harvesting wild rice from Birch Lake
Quality: it has been there as long as we've known it

Ingenious laboratory, this nature.

The rice grows on its own.

In 2050 B.C. the only iron available
in Babylonia came from stray meteors.
(Early star gazers, beware).

In 1948, serious interest
developed around the spot
where you are now sitting,
but explorations failed to find
any significant deposits worth revisiting.

In 2009, the proposed Poly-Met mine
was opened for public review.

Fact: we will build it for jobs

Quality: nearby waters

Fact: In 1475 B.C. Thothmes III went to war
Riding a chariot made from
33% silver and 67% gold
(we see the slaves trailing behind him,
their wrists bound with green carbonate of copper).

General Nature of Ore Treated:

Hippocrates told physicians
they should examine the winds
whenever they arrived in an unfamiliar town.

*Will it be necessary to build a storage reservoir
for mine tailing?*

In 1863, Dr. Horatio Robinson Storer, M.D listed the tools used
by various insane asylums for their patients:

Brigham's crib
Wyman's bedstrap,
Parkmann's fingerless gloves
Ruer's manacles
Horn's bifurcated sack
Autenrieth's leather mask
Guislain's pear-shaped frame
Hayner's suspended box
Darwin's dark chamber
Rush's surprise bath

During the Black Plague,
physicians in Paris recommended the King and Queen
preserve their lives by smelling apples.
The sick blamed Mars and Jupiter
for crossing paths. One remedy
involved avoiding onions at all costs.

*After answering any of the following "Questions"
that require reply, the writer of the foregoing
report is expected to fill in the blank pages
at the end of the book with his own words and ideas.*

In 1863, Dr. Storer described the menstruation cycle
of a laundress who gave birth to 15 children.
She said her body was filled with toads.
As if we knew better. Or, the sound of her mother's voice,
the abundance of light in her childhood bedroom,
the unauthorized facsimile of her life,
but not the names of her children.

What is the subsequent flood?

When I mention this laundress to friend,
she asks for methodology.

I tell her my father worked for a gravel pit.
Sometimes he unloaded his extra cement
into the swamp behind the main office.

See, he filled it in.

See, he put it back.

*

Drain pipe, water filter, ecosystem, inheritance.

*

After high school my father emptied his savings into a 1968
Ford Mustang. He rebuilt the engine and painted it blue.
Sometimes our family climbed into the Mustang and he drove
it up and down the only highway in town. By then
speedometer was broken. The leather stuck to my legs.
We could see everyone turn as we drove by.

*

I grew up two hours from the Hill Rust Mine in Hibbing, MN.
2 miles wide, 535 feet deep, 700 million tons of ore since 1895.

Bob Dylan's hometown.

I envied their high school auditorium with its gilded ceilings.
When my parents were growing up it was the wealthiest
school district in the state. The mine
wanted educated workers.

One day, the mine picked up the town
to get at the ore underneath.

The inheritance accumulates
whenever I'm not looking.

INTERVIEWS

INTERVIEW WITH A WOMAN WHO SWALLOWED ETHER

Do you believe in your grandfather's god?

A telescope is primarily an instrument for collecting.

How do you break your heart back open?

It is much the same with the stars.

Does the world have to end?

Clearly then the moon is no place for a prolonged stay.

INTERVIEW WITH MYSELF WHEN NO ONE ELSE IS LOOKING

Why are you an environmentalist?

I grew up with highways that stripped back my vowels,
the way maps only show what you want to see.
If you're lost, you still have options.

Why did you marry so young?

He was a thread, a yarn, then rope pulled across my chest.
I tried to lose him by crossing three continents.
The truth is, I wanted to be held.

Are you going to apply for a PhD?

At 4 A.M. my father drives the city snowplow.
Coffee in his plastic thermos night after night.
Nobody questions the route.

INTERVIEW WITH A MATCH.COM PROFILE

I Spend a Lot of Time Thinking About

The man in Delhi who read my palm and said I was destined for love later in life. My star chart said this was the year of three rubies and a horse. The child he predicted is two years late.

The First Thing People Notice

How I walk through a door, tip my glass, carry my briefcase, practice speaking. They notice me telling a joke with no punch line in the queue for ice cream or staring at yogurt containers in the Whole Foods aisle. They notice my shoe size, my jaw line, my bank account. The man with a picture of his dog notices the last book I've read. My friends notice gray hairs and thin lines on their bodies. They notice I'm tired of waiting. The psychics notice three old lovers trailing behind me, still tied by a thread for safekeeping.

What Are You Doing With Your Life?

Today the shoreline near my apartment was filled with geese. Somewhere a child is sleeping on the origin of a catastrophic flood. A woman told me the passing fade of keeping gold flakes in our blood streams was never a good idea.

INTERVIEW WITH SUSANNAH JONES ON HER 116TH BIRTHDY

What do you remember from your childhood?

Tipsy, circling light. Dust finds a way inside.

You were a school teacher in the Bronx?

I still hear them counting in a thousand languages.

How does it feel, living to be 116?

Nobody said it was a race.

Can you give us any advice?

Life knows you're misplaced, still living, still analytical.

INTERVIEW WITH A PLANET NOBODY
REALIZED WAS HIDING BEHIND THE SUN

How long were you planning to keep this up?

Given the choice, I might leave,
but I like it here.

Tell us about the sun.

Burn up once
and then return
do it all over again.

How did you avoid getting noticed for so long?

The radio says the age of discovery is not yet over,
so keep trying.

You were listening to our radios?

And bent stalks of corn, and satellites
and the next generation preparing
to enter the atmosphere.

What can you see from over there?

Everything
dropping into open
mouths.

INTERVIEW BETWEEN A PLANET AND THEIR DOCTOR

Exercising regularly?

I never get the same weight twice.

Looks like it's been a while since we checked your eyes.

I keep blinking and blinking and blinking.

What's this?

A piece of tin in my atmosphere.

And your love life?

Like trying to escape the moon.

INTERVIEW WITH A MAN WHO BELIEVES
THE MONA LISA IS WATCHING HIM

On the 3rd floor of the Museo del Prado I watch a blind man
reach out to touch her face, *femme fatale*, I'd like to touch her too.

*

They say our earliest cells dredged the sea for light.
See how we're still devouring the sun?

*

Towards the end of this life Da Vinci carried her everywhere.

A national committee reported finding symbols
in the darkest part of her iris.

I don't need them to see embedded narratives.

*

Her eyes let me know something is still watching.

*

Listen, when Jeanne Calment turned 122, she recalled
selling paint to Vincent Van Gough 1888.

She said he was *dirty, badly dressed and disagreeable*.

I know they're different people, but look what collected
there along the fringe of a single memory.

*

I want to pull out the symbols Da Vinci placed in her eyes.

Now a new committee calls those symbols *cracks*,
caused by aging and *shapes subject to over interpretation*.

*

Just watch the way she moves.

INTERVIEW WITH A MINING ENGINEER JUST NOW REALIZING THE
PROPERTY UNDER DISCUSSION APPEARS TO BE A GLACIER

Tell them the frost flowers
are blooming with brine
and the bedrock does not conform.

Tell them there are meteorites still burning on the surface.

*The exact location of the mine
can be found on any good map.*

This is what glaciers do —
release the horses
clean the kitchen floor
make ice cubes for the dinner party.

In 1777, a silver Roman ingot weighing 11 oz.
was discovered when new foundations
were poured for the Tower of London.

Because how did it get there,
or what did it accumulate by trying?

What would you be worth
after a dozen centuries?

*It should be ascertained
whether there is any dispute for the
possession of the property.*

So much for the change of the seasons.

There is..... indebtedness or encumbrance
against the property if put everything we own
in alphabetical order.

See: Debris, accumulation
Rigid-body rotation
Surface, debris
Toe, of glacier

It is extremely difficult, however,
to imagine how we could possibly take
anything more from the surface.

ACCUMULATIONS

WHEN FLIGHT 235 CRASHES INTO THE KEELUNG RIVER

So that we who stand on shore
without arms long enough to reach the survivors

say I can see them waving back.
I recognize their lives packed in floating suitcases.

All morning I watch the rubber rafts stir up the river.
I can follow the emergency workers circling the fuselage

or pour my cold coffee down the drain
as the video steams footage.

Search lights passing over military uniforms
study the dead machine like a metal coin

shoved down the throat of a city seized with
industry and warning lights. Each of the things

we created catching up with us. I can't separate
our inventions from the muddy streams around us.

I want to mourn both worlds we split open
on the shoreline looking over the wreckage.

I disturbed these waters by watching.
Or, what I lost when I turned away.

The river before the rescue,
the city before the crushed metal,
the flight patterns below the current.

OUR VERSION OF THE CARAVAN WITHOUT OXEN

I visited Montana once my cubicle co-worker says
before we traded lakes for gulches

looking at the sky my co-worker say *what an adventure*
before we left our mattress and books behind

where flat is not mountains
and snow in September is the same street

as our house with the blueberry bush planted by someone else
who tells *us fossil invertebrates are beneath us*

if we forget to water her daily our dreams become glacial lakes
coaxing little catastrophes awake with a glacier on each side

we were not there when something overwhelmed
the landscape, not when Al-Hakim

left on his journey into the hills outside of Cairo
and only his donkey returned with bloodstained garments,

not when the ice dam bursting near
Lake Pend Oreille worked as gravity intended

but never put into writing
the consequences of the expedition

AFTER DRIVING PAST THE FROZEN LAKE

with tracks drifting across the snow
circling a lone fish house with no one waving

back at us we hugged the highway up into towns with stoves
burning red oak cut last August from the mountain

we cannot see from here the stubble and melt beginning to show
grass where we placed our skis anyway I want him

to glide out past me into the half dark morning the shelter
of us only weight enough for breaths slipping

past like seasons pulling leaves back then forwards in the sun
rubbed grey sky suspended by the oncoming storm

we gather speed between stations of pine and cedar light
knocking branches together dear flight patterns

from which direction will the taming arrive if we keep
pushing up this slotted snow I want his cloud

chasing patterns too familiar on my melting mouth
to ask if this traveler remembers

YOU ASKED THE COWBOY HATS AT THE CENTER OF THE BAR

if they know any pilots willing to take me over the mountains
to photograph huckleberries and dry fields.

Really, you're fogged over by dream work and decision making.
You've felt the mountains rearrange in your sleep.

You wanted to see if they were still there—
A stranger said he'll take you. You split the gas.

O pine planks describing their bark on the last day of summer.
O tinder grass pulling back the sky.

I have been anxious too, in disbelief, the empty branches in their leaves.
How do we go on catching this yellow?

What we mistake for truth, the moon moving closer.
The moss keeps growing.

From up there, passing over, stepping off into the sky.
O monolithic knees kicking out into the cooling air.

O being caught again.

NOBODY TOLD ME REMOVING THE HIGHWAY WAS A TRESPASS

But I curled it up each night.
It went like the road makers into the last century,

backward down the slick tar cutting open the prairie.
I took away the train tracks too, passengers

waving like thin reeds crimped with moss hats
inside a mid-century sleep.

The past is a restless light crossing the same room
every day for a century.

This is what I found underneath:
*the bleached bones of a bear, the outline
of a cabin caved into limestone, a dozen past lives wandering
down the animal path.* What are we looking for
when we turn them over?

In one story the German monks arrived at dawn
carrying manuscripts and cast iron pots.

In one story they tamed the bear and penned him up
outside the monastery, or buried his bones at the edge of the prairie.

If I take their buildings apart, brick by brick
back to the quarry, the papers

fling themselves into the sky and the monks
stumble backwards searching for the road.

IN RØROS THEY HARVESTED THE EARTH FROM BOTH SIDES

hay to feed horses
copper to feed wars

men climbed into the earth
to eat what was growing on the surface

men skied up and down the Glomma
waiting for the mines to collapse

or the sun to return
and multiply their digging

from a distance
they resemble ants

up close they're listening
to ropes they've tied to the surface

when I arrive in Oslo
I don't tell customs I'm looking for copper

he marks a box for *tourist*
and returns my passport

TONIGHT SUSIE'S BLUE-EYED BAND

is playing no cover Irish songs in the Norwegian café
where I sit with two women leaning over the table.

*You can't play that song with a fiddle she tells us but he says
you played it before. And I says, you can't play that*

with no fiddle but she goes on playing into the night
reflected in windows overlooking the fjord

without a common language to describe driving twenty minutes
in either direction where dialects change places

with the water and glaciers only listen when I remember
phrases from the train leaving Oslo passing sunburnt

barns abandoned by my ancestors was it *copper*
or *currency* that kept them impoverished enough

to leave the hotel clerk saying a century later, if you
don't mind, it's easy enough to get lost in this town

ABOVE BERGEN

a funicular deposits us at the highest point
and plugged chimneys turn to matches

and matches turn to alphabets carried
by men and women making sidewalks

into ribbons played by legs scratching
notes for a record we confuse with birds

THE HEBRIDES

are overcast forests pulled back, craggy earth bare
from the wood removed to feed wars

beyond the strip of each horizon. It lowered, fused together
each night the line between water and sky.

The crofters who turned their back on the beached land.
Here the sea rushed the rocks. Their children

gathered seaweed strips. They hung them from rafters.
Whitefish bathed in brine. Lamb's wool caught

in thistles. Stone walls sloping towards water.
They returned each fallen rock to its wall,

until the earth rose up around it,
inheriting the outline of their work.

WHEN I WAS LITTLE I PLAYED THAT GAME TOO

Cross the bridge.

Escape the trolls
hiding underneath.

Of course they
want to eat you.

Of course you
reach the other side.

*

In 1617 an alchemist
paints a wolf eating a solider.

He says, *Antimony is the wolf.*
An element that knows what it needs.

And later, chemists will say
*Antimony is an atomic state
that doesn't like to be alone.*

See, the Alchemist will say,
What did I tell you?

*

The Tlingit tribe
Strongly cautions against
use of cooking grease
near glaciers.

Or, speaking too loudly.

When the Chamonix glacier
surged in the 12th century
the Benedictine monks in its path
sent pilgrims to place crosses in the crevices.

A Bishop offered his condolences.

I THOUGHT IT WAS A GLACIER

My guide said technically
it was an ice field.

The math professor hiking with us
said the swarming locusts
disappeared when settlers
plowed these high alpine fields.

Imagine your origin story
turning into hay.

In 1827 a Baron declared
single-horned animals
with cloven hooves were impossible
and expelled unicorns
from *A Compendium of Beasts*.

The son of Celopatra ruled for 11 days
and was never seen again.

In 1906 Butte, MT produced 20%
of the world's copper. Today,
for \$2 you can buy a ticket
and look into the pit left behind.
On a sunny day the water
is unassumingly blue.

SOMETIMES THEY HAVE SEEDS IN THEIR GUTS

And I contact the dead by placing nickels in a paper bag.
They arrive the next day in flocks of migrating birds

Copper and seed will pass through the ground
if you wait long enough.

My heart is currently soliciting spare rooms
for a future where nobody is lonely.

It hands out flyers on the sidewalk
across from McDonalds.

They read: *like dissolves like, 2-bedrooms,*
free hot water in copper pipes.

In another life I lived on an island
with yellow sand blocked by cliffs.

My brother was a famous astronomer
who taught me to use the telescope.

I remember salt on the hem of my dress
and shells the size of planets.

MATERIALS

Homer had no word for metal,
and savagery is the state of nature without alloy,
therefore Odysseus was never lost.

(Though he put his ship through the rocks,
pillaged predynastic graves, said
there were 5 ages of mankind before the sorrows
arrived, and believed men who didn't speak
had nothing to say).

We read the dictionary
upside down in Oslo to prove nothing.

To excavate passages
under dandelion seeds,
was anything ever really stopping us?

Gold does not dig itself,
and nature does not mind.
No man in isolation can be civilized. The safety instructions
do not include falling up, or turning left
into the ocean.

There it goes along the sand. We are mesmerized
and always cold and explorers justified their conquest
because Salishan wore copper rings
instead of currency.
Which does your god prefer?
Suppose we just asked instead?

C.G. Jung saw squares repeating themselves.
He hid copper pieces behind the ceiling tiles of his office,
heard them pulse whenever patients described cannons
going off inside their salt shakers.
(You cannot blame the garbage trucks in Paris).

As for opacity, why did you marry so young?
I was a thread tied across his chest.
The truth is I wanted to be held.

In another life I slept with the abbots,
let them fidget with my hair.
I was suspected of burning the fields,
 (it smelled like a landscape
without fingerprints).
I left Salt of Kali in their eyes.

In another life I lived on an island
 with yellow sand. My brother
 built the telescope,
 but I put our stars on the page.
The yellow fog that rubbed its back
along the shipwrecks.
I used their coordinates to entertain our guests
from Denmark
who wanted us dead on a regular basis.
 (Look directly at the sun,
tell me what you see, which direction
moving is your planet?).

I learned the sun is not ours,
and the telescope is a poor needle
and their ships will keep coming.

(Other things traded on the Silk Road: *jade, tea*
philosophy, disease).

Brother, we learned the mind is readable
if you place a mirror
at the back of your tongue.

What if I told you which clouds
spit green into the sea?
 Or Saturn tastes like a chestnut.
Mercury is red wine.
The moon requires a pure heart.

(You get to pick which extinction
you prefer, whether Thales of Miletus really predicted
the solar eclipse or if they were already
fighting in the dark)
 The Chinese discovered gunpowder
searching for the elixir of life.
But Jung kept samples of lead
beneath his tongue to test another theory.
He told his patients
 put these rocks in your pocket,
 here is a gold coin with etchings rubbed off,

the *Prima Materia* is underneath. Take it.

You too can make your own Philosophers Stone
using everyday household items.
Just keep licking your lips whenever
I clap my hands.

As for opacity, tell me everything you know.

*

Dear brother,
It is summer.

Your handwriting is a web
over everything I see.

Nobody suspects your boredom here,
or my lust for this routine: brushing sand off the lens,
this thing you call precious,
chipping back the universe,
fine tuning the elements.
There are so many to choose from on this island.

I laughed when I saw the planets move
and you said they couldn't touch us.
I tried preoccupation but it dissolved.
I tried green branches but they just smoldered.
(I forgot what I was looking for inside
these alembic little lights)
I tried pulling something tangible
out of the sky (they way they would fidget
with my hair). So I weighed myself everyday.
I tried thinning my eyelids – but they were open.
Far enough.

Cognate little mists.

Suppose we put it all back again?

Lamb's wool caught in thistles.
Bones under the fescue.
Tea leaves beneath a cup for our guests.
The largest mass of copper ever unearthed

weighed 420 tons
on an island in North America.
If was filled with stone hammers and wedges.
(Question, why didn't we just ask?)

What shape like this we give a world
we can't help changing.

— age of immortals,
degenerates and violent ends,
O to excavate the idea of spears,
to employ the stars, this metal culture
peeled back, our eyes blinking
when the light weighs more
than we do.

When gain extracts
solitude from a crevice. (But you said
of high horizons, of sea and sky,
how they keep going
long after we've defeated
ourselves and this island doubles in size:
landfill, cruise ship, fishing village, graveyard).

*

Dear brother,

It is morning. I am sending this
through the mountains to you.

Spring will come.

The glaciers will listen with
black holes outside their ears.
Everything we know uprising from
their tired,
tired chisel work.

Suppose the wind loses sight of the storm,
whether or not I am seen or unseen by history?
It's not about losing, or anticipated grief.

Or what went fast and hot
Before we arrived.
O monolithic knees kicking up dirt.

What we mistake for truth
is the moon moving closer.
I hear myself coming.

I heard you say — bury
the sun if they won't take us back.
Suppose I put it back.
You said — they will not touch us,
overlapping my words.
Brother, when they poison us,
it will burst.

Here I am expecting your
heart strings, bare bones,
minds eye to save me.

I let the stars pass without putting out my hand instead.

Little alembic seeds.
Vowels soaked in brine.
Shells the size of planets.
The dead Russians arrive in flocks of birds
(seeds still, still in their stomachs).
They've informed me (again) that copper and seed
will pass through the ground if we wait long enough.

You can't protect me from there.

(When we learned a telescope
is primarily an instrument for collecting
our own thoughts ...

we expected too much.
The whole structure
is still hostage
to our gaze. Let them keep us hostage,
all I want back, my body).

How do you break the heart back open?
Suppose it is much the same with the stars?

O tender lights,
I've been waiting for you too long.
Brother, you said — step back from my mind!
Opacity takes 800,000 light years to reach
where I'm standing.
Clearly this is no place for a prolonged stay.

GIANTS

My first tequila shot came later than most of my friends. I was a college sophomore. The phone call from my father—within 30 seconds of that initial bottom-shelf burn—reaffirmed my lifelong suspicion that my parents will know immediately if I've done anything wrong. I attribute this wariness to my hierarchy as the oldest child of a Catholic family from a small town.

The question, “Which Brink are you?” Solicited my response, “Gene’s granddaughter.” And the inquisitor would nod knowingly, because at some point someone in his or her family purchased the cement from my grandfather that would lay the foundation for their home or business.

Or my father—an employee of the family business starting at age 14—might have added a truckload of Class 5 gravel to their driveway.

Or they remembered the commercial for Brink Sand Gravel and Redi-Mix on the Public Television station starring myself—age four, pink-striped pants, thin brown curls—sitting in the sandbox next to the first house my parents owned.

We keep a copy on a VHS tape in my parent’s laundry room. In the commercial a cheerful voiceover describes how happy I was when the folks at Brinks delivered my new sandbox sand. I prove the credibility of his statement by turning to the camera and putting a plastic bucket on my head. As far as I know the commercial was still playing when I started high school.

“I saw you on T.V. the other day!” A teacher might say and I would glow with small-town fame.

In 1644, a Norwegian farmer named Hans Aasan Olsen discovered copper while hunting reindeer near the modern day village of Rorøs where his home was located. According to legend, when Hans fired his gun and scattered the herd, their hooves turned over clumps of moss and revealed something shiny underneath.

He was 87-years-old. What if he had been looking at the sky? We know this happened because somebody painted a portrait of Hans after he died and its still hanging in the only church on the only hill overlooking the city. Under the portrait a small plaque reads, “Hans Aasan Olsen discovered copper in 1644, which led to the founding of the Rorøs Copper Works.” I know this because he’s my 10th great grandfather.

Within a year of his discovery, experts from Germany and Denmark arrived. The King gave owners of the Rorøs Copper Works exclusive “privileges”—that was the official term—to all of the natural resources located within a 44 km radius, including the trees, water and people, who were mainly farmers obliged to work for the mine whenever they were “asked” to do so.

The plaque also tells us that Hans lived to be 116-years-old, but nobody knows where he is buried.

On a plane from Missoula to Atlanta in 2015 I sit next to a promoter for the Telluride Film Festival who wants to know my story. I find myself telling him about Hans discovering copper and my own grandfather turning gravel into gold in northern Minnesota. The man who makes a living promoting documentaries makes the connection for me.

“No offense,” he said, “but it sounds like you’re from a family of diggers.”

“You mean trolls?” I ask.

“Yeah. Those.”

That phone call from my father on Halloween night went something like this:

Me: *uh, hey dad.*

Dad: *how's it going?*

Me: *fine, what's up?*

Dad: *well, we had an accident here today ...*

I don't remember the call because my grandfather died. I remember it because my father and I don't talk on the phone. It's not because we don't *talk*. He just doesn't check in very often, but neither do I.

So I answered when I saw his name on the caller ID.

I was convinced he could smell the tequila, or somehow knew I was wearing fishnet stocking and big, hoop earring. It was the Friday before Halloween and I was going through a dress-sexy-and-go-dancing phase with my roommates. The phase would last longer for my roommates than it would for me.

We're accustomed to grandparents dying. Groomed to recognize their inevitably. But I wasn't prepared for my father to say my grandfather's Ford Escalade had wrapped itself around a pine tree on Hwy 2 that afternoon and his new wife, Edith, was fine.

It never occurred to me that my father didn't go to college until I was in college. This after my maternal grandfather pulled out a map of Minnesota, placed the point of a protractor on the dot of my hometown and traced of 200-mile radius circle in pencil. I was having a hard time deciding where to go to school. There were posters from Art schools in Chicago and New York hanging in my bedroom and stacks of promotional magazines in a black trash bag next to my bed.

"This looks like a good distance for a young woman to travel for school," my maternal grandfather said, pushing the map towards me.

When I repeated this story to a friend recently, he was impressed.

"That's really progressive, isn't it? Encouraging you to get out?"

"No," I had to explain, "he thought I should look *inside* the circle."

The other story is that my father tried to attend college. He didn't want to get out, but he had this dream of owning his own car shop. My grandfather refused to pay for it. One version is that my grandfather wanted my father to stick with the family business. Another is that my grandfather thought painting cars was a toxic business (consider the fumes, the labor, the risks involved). In the end, my grandmother paid for one semester of community college. At that point, my father knew he could make a good living working for the gravel pit. So he dropped out and bought a 1968 Ford Mustang.

The result: I left home and he stayed. We learned to talk across the ditch of experience. Or, when I was in college I felt like I lagged behind what everyone else knew. When I went home I struggled to know what to say. I remember all of this because of one conversation at the dinner table.

My father said, "If you talk like that people will think you're a snob." What did I say? I can't remember. And he was probably right, because he was just trying to help me live in the world. And he knew, that I knew, that he was paying for every penny of my education, and we were digging ourselves out.

The ouroboros is a serpent constantly devouring itself as it regenerates.

Late in his career German chemist August Kekule (1829-1896) claimed he discovered the benzene molecule was a ring shape after dreaming about an ouroboros. I don't really care about the origin of benzene, but I ended up attending a Benedictine university just outside that 200-mile radius my maternal grandfather drew for me—the same university my maternal grandfather attended in 1959, after he made the decision in his early 20s to break off from the path he'd been to become a Catholic priest. He left. I left. Were we breaking the circle or expanding it? Does the taste of freedom feel like being devoured?

My grandfather was a millionaire when he sold the family gravel pit in 2008. A fact my parents hid from me for as long as possible. The money went into retirement funds. One cousin cashed his out and built a garage. Another lost all of it at the casino. My grandfather built my grandmother her dream house – on a hill overlooking the Mississippi, three lots down from our own – and she died in her sleep a few months later. Nobody thought she would die first. Her heart was stronger. They both had diabetes. His cholesterol was higher.

Then again, nobody expected him to marry Edith, the chatty waitress at the restaurant where we went for breakfast after church. Edith, the mother of two kids—a 15-year-old girl whose name I’ve forgotten and a 17-year-old boy who sat near me in chemistry class—moved into the house where everything my grandparents owned in their fifty-year marriage became their things, and the 17-year-old classmate became my Uncle.

It’s not a mystery that my grandfather was lonely. He was unmoored when Edith first started to stop by his house for visits after work. I can picture him making her coffee. He was glad to have someone else to talk with. Maybe we should have visited him more often. When he left my high school graduation party early – a garage filled with relatives, balloons and pulled pork — it was too late

“He was acting so weird that day,” I remember my mom saying. Because he left the party to sign the marriage papers without telling anyone

Edith was scrutinized from every angle by the eight suspicious adult step-children she inherited. She didn’t try very hard to win the family over and we didn’t try very hard to like her. During a tense Easter gathering the spring before the accident, we ate cake off paper plates and the younger kids played video games while she sat on my grandfather’s lap playing with the massive diamond on her finger.

In Scandinavian folklore, the term *troll* has broader associations than you might expect. According to John Lindow in *Trolls: An Unnatural History*, they might be “large, or small, solitary or social, real or imagined.” They’re supernatural creatures who create dwellings in the Other places humans don’t want to go – caves and dark forests. The idea is embedded in the Norwegian language. If someone is *trollet*, they’re bewitched. And a certain type of algae is called *trollkjerringspytt*, which means “troll women’s vomit.” If you eat a *trollbaer*, you’re also eating baneberry, which doesn’t mind killing you.

What I didn’t realize was that trolls are the earth dwellers, but according to Lindow, the giants are the earthmovers: “The giants of mythology are not particularly large, or at least no larger than the gods. They are first and foremost the group with whom the gods compete for resources.” Maybe the man who made documentaries for a living wasn’t right after all. I’m not from a family of diggers. I’m from a family of giants.

When I visited Norway in 2015, I traveled by train to Røros to see the mine site discovered by my ancestor. When I arrived everything was closed for a national holiday, including the mine. Not to be defeated, I walked through the UNESCO-designated historic district, past traditional-Norwegian, thatched houses, up a cobblestone hill towards the church with the painting of Hans locked inside.⁵

In the graveyard outside the church I played a game with the universe. The rules went like this: *I will walk past headstones. When I'm getting close to you Hans, it will start snowing harder. This will be a sign that you're nearby.* I didn't know yet that his burial place was a mystery. I just assumed we would find each other. I wanted to be haunted by him. I walked up and down the rows until I couldn't feel my fingers.

During the summers when we were young enough to play this game, my parents would drive my brothers and I to the gravel pit after dinner. We liked to race up the big piles of sand behind the main office. From the top we could see over trees and telephone wires and look across wide cavities where my family was methodically pulling back layers of the earth. Then we slide back down, sending sand cascading in mini-avalanches around us, over and over again, until it filled our shoes and slipped between our t-shirts and stuck to our skin, so that no matter how much my mom brushed us off before we got back into the car, it came home with us.

The only church on the only hill overlooking Rorøs was built in 1784. It was commissioned by the Rorøs Copper Works and presented as a gift to the workers and their families. For a final touch the mine placed their company symbol on the church steeple. Where you might expect to see a Christian cross, instead there are two mining tools under the Venus symbol.

When I asked my guide why the company included the female symbol on their coat-of-arms, he pointed out that Venus is also the ancient symbol for copper.

And Rorøs Copper Works wanted to remind its workers where the church came from.

And Venus was the most luminous point in the sky when someone said its luster matched the copper pushing through the earth's surface. Or, we went in looking for it.





CREDITS

All italicized lines and bold section headings in the section titled A POETRY HANDBOOK FOR MINING ENGINEERS are taken from A.G. Charleton's *Report Book for Mining Engineers* (Whitehead, Morris & Co, 1908). I discovered the report book on the top floor of the University of Montana library in the summer of 2015. According to its authors the handbook was a tool "designed to enable a comprehensive report, to be obtained in a compact shape, upon properties that mine owners or purchasers wish to sell or acquire." It was also an artifact filled with questions, after more than a century on the shelf, that nobody had taken the time to answer.

"Interview With Susannah Jones On Her 116TH Birthday" refers to Susannah Mushatt Jones, an American supercentenarian born on July 6, 1899, the world's oldest living person as of April 16, 2016

"Interview With a Man Who Believes The Mona Lisa Is Watching Him," includes the line "dirty, badly dressed and disagreeable" from multiple sources, including Martin Latham, quoting Jeanne Calment, who died in 1997 at the age of 122.

Italicized lines in "Interview With A Mining Engineer ..." come from A.G. Charleton's *Report Book for Mining Engineers* (Whitehead, Morris & Co, 1908).

In "General Nature of Ore Treated," the list of tools used by various insane asylums for their patients comes from Horatio Robinson Storer's *The Causation, Course, and Treatment of Reflex Insanity in Women* (Lee and Shepard, Publishers, 1871). It also references treatments from the Black Plague found in Anna Montgomery Campbell's *The Black Death and Men of Learning* (AMS Press, 1966).

Italicized lines in "Interview With A Woman Who Swallowed Ether" come from *The Stars in Their Courses* (Penguin Books, 1930).

The reference in "I Thought It Was A Glacier," to the *Compendium of Beasts* come from Daniel Cohen's *A Modern Look at Monsters* (Dodd and Mead, 1970).

In "Materials" the claim "Homer had no word for metal" comes from T.A. Rickard's *Man and Metals: A History of Mining in Relation to the Development of Civilization* (Whittlesey House, 1932). The poem reimagines the story of Sophia Brahe (1556-1643) who "assisted" her older astronomer brother, Tycho Brahe, at his observatory on Danish island of Hveen.

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