Fieldwork Poetics and the Art of Observation

by Samantha F. Jones

STUDYING THE FRESHET

I arrive before the larks and gulls.
The days are bright. Everything is frozen.

In weeks, days or hours
the river will wake

blue flow brown and yellow,
green then almost black

delivering the lake’s estate to the coast.

A thin skin
freezes overnight
catching the lazy water too slow
to escape the crystal lattice.

Lemmings watch us
from under an old pallet
wood bleached blanched
by sun and wind and cold
and running water

We look we measure we sample we write we snap photos we take a break to warm our hands

Dear river,
I’ll take a bit of you when I go.

Spring melt tapers
the land is soggy with life
saxifrage blossoms burst from mounds
of tiny stems and leaves

the summer actors have arrived   birds who know
it is prosperous here.
RED PHALAROPE

There is no one on the esker rocky
ridge a remnant of glaciation
undulating across the lowlands
Snow melts and drains runnels
off the crest and down the still frozen flanks.
I cast my arm and instrument
scanning a swath and settling
on a spot to measure.

The river slips around me.
I forage for data
below the water surface.
She’s half submerged
a rusty periscope sticking out
of a water-filled pothole
I’ll brag that I’m the first to spot one
even though she’s not what I’m here for.
It’s after midnight
but the softened sun still shines
light
partly stolen by mist.

I become a wader too.
Less daring than her
I stop
when the water is an inch and a half
below the top of my boot.
Some wiggle room.
I tell you that I saw her
bathing in a dent in the road
describe her location by twists and turns
and relations
to other things.
You’ll have to take my word for it.
I didn’t write it down.
THE POEMS

Studying the Freshet and Red Phalarope
are based on experiences and observations from
a 5-week late May to June field season in 2019 in
Iqaluktutitaaq (Cambridge Bay), Nunavut. The community
and surrounding areas are located on the traditional
territory of the Inuit (Native Land Digital, 2021). The
fieldwork is part of my PhD research and is focused on
the dissolved inorganic carbon cycle in the connected
Greiner Lake–Freshwater Creek–Cambridge Bay coastal
ocean system with an emphasis on seasonal variations and
cycles. Both poems are set during spring melt and capture
characteristics of the season. This brief essay discusses the
role of science poetry as a unique method that produces a
literary deliverable, while at the same time informing the
way that I conduct research.

Poetry and poetic text have applications in
communicating scientific concepts including processes
that occur in the natural world. For example, in Studying
the Freshet a list of colours describes the appearance of the
river water, “blue flow brown and yellow, / green
then almost black.” These lines develop a series of images
that bring the reader to the creek, but the colours named
and the order of the list are not arbitrary, they are an
expression of process. At the onset of spring melt, pools of
blue water sit on top of the snow and ice. As melt season
progresses, these pools coalesce into channels flowing with
brown and yellow water rich with materials accumulated
under ice during the winter months and from the
landscape. Water volume increases and the colour lightens
and appears green where the river flows over ice still frozen
to the streambed. The nearly black water is associated with
peak river flow where the water is deep and turbulent and
appears opaque to onlookers. Curated details such as this
list of colours capture the spring melt and river break-up
process. In this way, field observations are intrinsic to the
poem and the progression of a seasonal cycle is embedded
in the work.

In addition to simulating process, poetry can deliver
elements of the immersive fieldwork experience to the
reader. In Studying the Freshet the long line, “We look we
measure we sample we write we snap photos we take a break
to warm our hands” prompts the reader to move quickly
through the text, perhaps reading the words on a single long
exhale if speaking aloud. This sustained effort parallels the
physical and mental energy expended while working in the
field, often in challenging environmental conditions. The
“break to warm our hands” at the end of the line provides
relief and a temporary change of pace. The repetition of the
word “we” mimics the repetition executed in the field when
collecting time-series data, where researchers return to the
same location multiple times over an extended period to
repeat measurements and look for temporal trends. These
demonstrate how word choices and arrangement
can provoke emotional responses that provide insight into
what a field researcher may have been experiencing while
making observations.

Red Phalarope features the changing landscape as
temperatures warm in the spring. My fieldwork requires
travel using an all-terrain vehicle and this poem shows the
tension between the calm water on a particularly tranquil
night and the pitted and bumpy road that runs along the
top of an esker (Sharpe, 1993). In this work I liken myself to
a shorebird, dipping below the surface, “I forage for data.”
The red phalarope, the bird featured in the title of this
poem, is one of the migratory species that I observed in the
field during my work. The change in birds over the course of
the field season is a memorable detail and although they are
not part of my research, the appearance and disappearance
of species formed a chronology that paralleled the changes I
was observing in the carbon cycle and in the hydrology.

A completed science poem may be useful as a science
communication tool. In addition to being enjoyed as a
literary work, science poetry can introduce concepts to
non-specialists and inspire specialists and non-specialists
alike. The arts, including literary arts like poetry, are
effective media to build investment in addressing global
challenges and to communicate the urgency to act.
Artistic interpretations of scientific research help build
emotional connections with a broad audience and can
act as an invitation into disciplines that may be otherwise
inaccessible. A few being said, I believe that the role of
science poetry expands beyond the generation of a product
that disseminates ideas. Creating science poetry involves
deep reflection that changes the ways that I interact with
my surroundings and the ways that I understand my own
research. Writing science poetry is not an act of translation
that requires careful interpretation and develops fluency
across disciplinary boundaries. However, proficiency in this
liminal space is not a prerequisite to write science poetry;
rather the scientist/poet will grow their craft through their
authentic practice of showing up and creating. Science
poetry is for everyone.

Similar to re-writing notes while studying for a big exam,
writing poetry is one way to preserve details and solidify
memory. Crafting the perfect line or stanza allows me to
once again immerse myself in the research and to process
information with a unique purpose and deliverable in
mind. Revisiting a location, study, or task through a poetic
lens may result in shifted emphasis or a change in pace.
Fieldwork and research is often fast-paced, particularly
when researchers have a limited number of days to complete
their scope of work. Poetry encourages me to slow down,
loiter over a single word choice, to find an anchor. These
behaviours can translate to fieldwork practices, prompting
me to linger, to ask questions, and to pay attention to details
previously considered tangential or unrelated.

In addition to influencing the way that I observe my
surroundings, writing poetry poses questions about
how I remember and the timing and accuracy of details.
Considering how my life experiences affect the ways that I work and the things that I see and notice is an important component of understanding how I function as a scientist and a researcher. Honesty and humility about how positionality factors into my scientific work are crucial for identifying potential biases and missed opportunities. This type of exploration strives to build deep self-awareness with the aim of increasing effectiveness as a researcher, but also as a community member and advocate. Poetry is a forum where I can ask myself complex questions, such as what are data? The final two lines of Red Phalarope state, “You’ll have to take my word for it. / I didn’t write it down.” This conclusion asks, what is required in order for something to be considered an observation? And what counts as a record? These questions are relevant to the research community, particularly as academia continues to shift in a direction that is more inclusive of diverse methodologies.

The poems presented alongside this essay could not exist in isolation from the science work and field observations that underpin the content. At the same time, the poetic process shifts perception and deepens connection, causing me to change because of the creative act. In this way, processing information through writing science poetry is a method that makes a unique contribution to my scientific research.

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Samantha F. Jones, PhD Candidate. Department of Geography, University of Calgary, 2500 University Drive NW, Calgary, Alberta T2N1N4, Canada. ORCID 0000-0001-6375-0536
samantha.jones3@ucalgary.ca

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