



Almanac: Limnology

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DOI: <https://doi.org/10.1344/jnmr.v3i2.40229>

For my entry to the almanac I contribute two short prose poem works that seek to articulate the concept of limnology through descriptions of two distinct, but similar places: water bodies impacted by industry. Limnology is the study of inland bodies of water and aquatic ecosystems, including biological, chemical, physical, and geological characteristics of fresh and saline, natural and man-made bodies of water. By extension, the aquatic ecosystems include the impact of human activity, both material and manifested through culture, such as dance. The word 'limnology' is also homophonous with 'liminal', denoting a threshold or in-between state: between water and land, solid and liquid, man-made or arising through natural processes.

The concept of limnology (and the liminal) in both scientific and artistic expression are particularly useful and resonant as a means of thinking about, documenting and experiencing the material qualities of place, creating a material map incorporating histories and ecologies and the entanglement of human and non-human materialities.

Hamilton (Ontario, Canada)

Grey expanse of Lake Ontario in winter – clouded by drifts of windblown snow, merging with land. Ice and crystalline cirrus drift as if there is no delineation. Water and land are one and whole.

Through the marshlands of Coote's Paradise where herons stalk and snapping turtles burrow, now hibernating deep under the mud and ice.

This corner of the Lake, this apex of the Golden Horseshoe.

Where the bright copper scales of Mishipizheu once flashed and coiled in the depths, bringing storm.

Cracked slabs of surface ice jut in the winter-slow flow – laden with memories of glaciers and Deep Time. Which deposited once-living crinoids, corals and brachiopods whose traces filigree the gray delineated geologic layers of the mountain that was once an ocean.

Ordovician.

Silurian.

Devonian.

Layers of time compressed into rock. A stone book of life's unfolding.

But the People here have changed –
the water no longer receives the strokes of wooden paddles, the wake of the canoe drawing lines across the surface. No harvest of wild rice and cattail roots. Mishipizheu waits, stilled, now as petroglyph, as stone, to be remembered in song and story.

Now, the beds of most water bodies are Crown land.

But on side of the Lakeshore – Industry boils.

Slag heaps of mutated geological forms stripped of ores.

A barren landscape of twisted metal and poisoned soils. The alien extrusion of slag heaps, melted waste.

Smelter and blast furnace shaping the lives of the city's people, always refining.

Multi-coloured flame rises from flare stacks, illuminating the night with eerie glow.

Our Strength is Steel.

Only the water remembers, and the other side of the Lake – where forests grow, leaves flash and turn in the winds, Chickadee sings, flitting between the branches of Sassafras, red-winged blackbird will return in spring to call among the cattails, and Mishipizheu laps the shores, calm for now, with copper whiskers and scales glinting in the depths.

Wuppertal, Germany

Flying down the River Wupper on a backbone of steel, the Schwebbahn, suspended monorail, flows above the flowing water below.

Forged from industry and the fruit of labour in the mines of the Ruhr.

A giant centipede of steel straddling the riverbed. Flying past former industrial complexes forming a historical panorama of the city's own evolution, from the 1800s to these current times.

Water has shaped industry here – the mechanical mills for weaving and dyeworks.

Water has also shaped place – the literal eroding of the valley, the many towns that have since coagulated here, in this valley forged by water through the mountains, coalescing into the linear conformation of the city of Wuppertal, following the very line of the riverbed.

Industry and human life coalescing, villages merging like droplets of water. Water has had such an impact, both on the physical and psyche of the city. Walking along the river, a green belt flowing through the heart of the city, nature's resilience is revealed. Time slows, and the sense of being in a city alters substantially. The sounds of the water flowing, occasional birdsong are all. The noisy passing of the Schwebebahn overhead brings the city back to the river.

Wuppertal is the home of famed choreographer Pina Bausch and the Tanztheater Wuppertal, whose works frequently involve interactions and interventions with water – from gentle mist and droplets, to water being poured, hurled, or violently sloshed over dancers' bodies, or as a medium through which they must move – whether sliding like fish, wading through pools or spinning under cascading rain. The works often feature water dwellers – the upraised fluke of a whale, a walrus, a hippopotamus, a boat; or else suggest coastal regions with rocky or sandy shores, or lush, verdant woodlands, dripping with moisture. In these works, water is seen as something intrinsically alive – whether as an elemental force or life, or latent joy or even sexuality. Water is clearly a creative medium, and one which evokes joy and celebration.

The inspiration for these works has I would like to speculate arisen from the very environment of Wuppertal itself – the river Wupper flowing through the valley of the several historic town centres now comprising the modern city. Of course, it should be noted life everywhere across the earth dances with water in one way or another. Wuppertal's dance has long been defined by its character as an industrial region.

Industry as riverine choreography of matter and technics, driven by the power of the Wupper river and its tributaries, and elsewhere conglomerations.

Bibliography

Morrisseau, Norval (1977). *Legends of My People: The Great Ojibway*. McGraw-Hill Ryerson.

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