

LOCATION AND NAVIGATION: WAYFARING AND ARTS OF TUNING

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ABSTRACT

Wayfaring hones our ability to discern familiar and alien settings, reinforcing our sense of drifting or belonging. Ways of wayfaring evolve technically and cognitively: while star path steering of ancient vessels meant instrument-free navigation, the “star paths” of today’s spacecraft are largely controlled by remote apparatus. Navigation can be construed as a kind of exploratory tuning whereby we access infinite or infinitesimal spatial and temporal scales, in contrast to location and situatedness which imply positioning, thus responsibility for the paths traced by our journeying. The more we develop our wayfaring skills, the more we need to celebrate (in) specific times and places through aesthetic experience that uniquely tunes our responses in and to, the Anthropocene.

DEDICATION TO AHMAD IBN MĀJID

This paper is a wayfaring exercise, an experiment in sounding ideas amongst people from different cultures and parts of the world. It is an experiment that, in this particular location, pays homage to one of the greatest Arab navigators, Ahmad ibn Mājid, born in early 15th century Julphar, now Ras Al Khaimah (the “top of the tent,” designating the northern most sheikdom of the United Arab Emirates), to a family famed for generations of sailing mastery. Ibn Mājid celebrated for his navigation skills as the *Lion of the Seas* (أسد البحار) and the *Shooting Star* (النجم اطلاق النار). His *Book of Profitable Things Concerning the First Principles and Rules of Navigation* (1490) is a still superbly accurate encyclopedia of navigational history and principles. His works describe phenomena such as lunar mansions, rhumb lines, coastal versus open-sea sailing techniques, naval routes and port locations from East Africa to Indonesia, star courses, astronomical meteorology, accounts of the monsoon and other seasonal winds, typhoons and currents. Ibn Mājid revolutionized the mariner’s compass, doubling the number of sections to 32 and improved latitude readings from the Pole Star’s position. His maps were used by Vasco da Gama to complete the route between Europe and India. Ibn Mājid was a polyglot who spoke Tamil and East African languages as well as Persian and Arabic; his writings embraced geography, religion, history, astronomy, genealogy, literature; he was a poet whose *Hawiyat* numbers over a thousand verses dealing with navigational theory. The following reflection on location and navigation, wayfaring and arts of tuning, is respectfully dedicated to Ahmad ibn Mājid, the Shooting Star, the Lion of the Seas.

I MOTU MAI I WHEA TE RIMU O TE MOANA? WHENCE WAS THE DRIFTING SEAWEEED TORN?

As a foreigner to the Persian Gulf, amongst artists exploring the theme of location, it feels fitting to cite this Māori proverb whereby one seeks to learn the origins of a stranger. Attuned to the sense of place that characterizes island nations like my Aotearoa homeland, this interrogation addresses the relationship between

sites of anchorage and belonging and plants from the sea. The drifting seaweed metaphor conveys a particular sentiment of location, since territories defined by their shores are inherently unstable because of oceanic movements. Such features bring home the importance of recognizing the different kinds of cultural models we use when thinking of place and related notions of boundaries and property. Countless location-defining models, involving concepts such as sovereignty, community, landscape, ecology, commodity, moral order and productivity, are interlinked in ways that are too often undermined or skewed. [1] Creative approaches to location require awareness of this term’s different, sometimes conflictual readings: determining the drifting seaweed’s provenance is itself a slippery issue.

Location can be construed as a kind of convergence, meaning the act of coming together, perceptively and cognitively, physically and socially, in other words, moving towards a kind of union. Convergence is therefore performative in bringing a location, a moment, an instant into existence as a salient entity in otherwise indiscriminate terrain. The sense of moving towards a shared focus, a shared concrete or symbolic site, might be seen as a prerequisite for our sense of location, the feeling of being rooted which Simone Weill calls “perhaps the most important and least recognized need of the human soul.” [2] This need is hard to define because human beings are rooted by virtue of “real, active and natural participation in the life of a community which preserves in living shape certain particular treasures of the past and certain particular expectations for the future.” [2] Rootedness and location have to do with participatory practices, shared legacies and projections. Even – or especially – in moments of voluntary exile and solitude, humans seek out vantage points that favour experience that can be relayed back for the benefit of their communities: the Prophet Muhammad’s retreats to the Gar el Hira on Jabal an-Nour mountain, Gautama Buddha’s meditation under the Bodhi tree in Bodh Gaya, Christ’s sojourn on the Mount of Temptation in the Judaeian desert. Location and the rhetorics of belonging are part of a collective ethos, a community spirit, a “coherent amalgam of practices linking habit with inhabitation.” [3] Said’s writings as a Palestinian-American raise the spectre of location’s grim opposite, namely exile: the incoherent state of those who are voluntarily or involuntarily dislocated and displaced – increasingly the case for millions of our fellow humans. Exile from overt warfare, from covert economic, political, cultural struggles, from cataclysmic events beyond our control and from transformations to our planet for which we are responsible; exile described by Said as “the unhealable rift between a human being and a native place, between the self and its true home.”

Our sense of location is anchored in the nexus of relations that make place feel native to us, embracing our existence and that of

our forebears. It is marked by an awareness of ecological, geological and cosmic times of non or extra-human place, of times beyond the Anthropocene. Such an awareness of temporalities and modes of liveness stretching beyond our own mortal presence is needed to ensure viability of that same Anthropocene and to cope with the complexities of what Louis Bec calls “our technozoosemiotic world.” [4] Bec’s term encapsulates the “biologically living/technological/data processing instrumentological” complex on which we – and the Anthropocene – henceforth increasingly depend.

WAYFARING IDIOMS, WAYWARD LANGUAGES AND VALUES

Complementary to the idea of location is that of wayfaring, forging one’s path through and across terrain. Our cultures testify to many modes of wayfaring, including aimless wandering (perhaps the sempiternal impulse behind the Debordian *dérive*), where meandering paths can lead to serendipitous discoveries – drinking water, food, a mountain, a passage, a desert, a forest, an ocean. What literally drives our journey implies and determines different relationships to locations. In willful terrestrial wayfaring practices like those of Bedouin desert dwellers (the Arabic term *badawīn* means living in the desert, while the Greek term *nomás* references pasturing flocks), mobility is in part underpinned by the pursuit of sustenance, acquired by hunting or gathering, respecting seasonal rotation to maximize resources. Yet however vital these material pursuits, to see them as sole drivers of nomadic mobility is to prioritize a commodity-related cultural model to the detriment of others (e.g. models pertaining to community, landscape, ecology and moral order, as per Thompson’s classification). [1] Reductionist views erode respect for lifestyle and location differences, and the resultant inability to grasp the complexities of major environmental transformations can be highly damaging.

Such is the case in the Sahel (meaning “shoreline” in Arabic, to denote the coastline-like vegetation of this belt delimiting the Sahara sand): although it has been prone to droughts for centuries, recent decades of over-farming and over-population have hugely accelerated desertification. Assumptions that modes of existence and wayfaring like those of the Sahel Bedouin are solely materially focused, often made by persons whose own lifestyles are thus focused, fail to acknowledge symbolic values that are at least as important as concrete necessities and commodities, in determining how we move around in, relate to and understand our environment. Human sustenance is inextricably bound up with social mores: “we and all other animals need to eat food as a matter of our biological nature, of necessity, but the choice of what we eat is part of the realm in which we exercise freedom and create culture.” [5]

Our different, often deeply embedded cultural models make it hard to weigh up the diversity of approaches to wayfaring and location. These models are moreover often couched, as in the English language used here, in tacit value-laden discursive frameworks that may not be relevant or may even be anathema to phenomena they try to address. Polarized constructs like

‘materialism’ versus ‘idealism,’ or the ‘nature/culture’ divide, may be meaningless, as in certain so-called indigenous knowledge traditions. This may also be the case in western post-humanist thinking liberated by ‘discoveries’ of distributed sentience, material agencies and other ontological turns. While these epistemological openings are in many ways welcome, they at times curiously trigger what is at best blind enthusiasm, at worst hubris, overriding the innumerable conceptions of liveness, sentience and agency that have been operative in other cultural systems for thousands of years. Surely intellectual wayfaring must, as far as possible (i.e. within the limits imposed by our enculturated standpoints), seek to engage with knowledges beyond self-referential and/or mainstream sources.

Awareness of our underpinning cultural biases is a prerequisite to more fully assuming our responsibilities within the Anthropocene, but deeply wired ways of thinking cannot be miraculously undone: superficial changes in terminologies, for example, are no magic wand. On the contrary, as pointed out by Plumwood, tokenistic breakdowns of boundaries are damaging because they facilitate the colonization and destructive assimilation of weaker elements by their stronger counterparts. We can guess which of the nature/culture or idealist/materialist components would survive if these binaries were too carelessly dissolved. Instead of quick fix terminology changes, we need to devise narratives able to accommodate deeper processes of interrogation, encouraging us to creatively think, re-think and adjust our visions beyond predominant world views.

WAKES AND WAKAS, CLOUD SIGHTINGS AND ETAK SITINGS

Some see terrain traversed by the wayfarer as a non-place, a site of transit that remains subservient to destinations which stand as the only valued places. Others value wayfaring in and for itself. They construe the act of journeying – not the arrival or anchorage – as the way to enlightenment. The latter visions are often associated with eastern philosophies: Buddhist notions of impermanence or emphasis conveyed by the very name of Tao which means ‘way,’ suggesting a road, channel, path, doctrine or line. The ephemerality of wayfaring is also valued as an actual process and as a metaphor for life, by western thinkers including Portuguese poet Antonio Machado:

*Wanderer, your footsteps are
the road and nothing more;
wanderer, there is no road,
the road is made by walking.
By walking one makes the road,
and upon glancing behind
one sees the path
that never will be trod again.
Wanderer, there is no road--
Only wakes upon the sea.
Proverbios y cantares, Campos de Castilla, 1912*

Mastery of wakes upon the sea, highly developed in the Middle East, is likewise a hallmark of Pacific cultures. Aotearoa in Māori means “the land of the Long White Cloud” spotted by land-seeking Polynesian navigators from their wakas or tribal canoes. The English name, New Zealand, is a literally double Dutch term mixing sea and land (a situation familiar to those living in The Netherlands). The first inhabitants of this geologically young country displayed extraordinary navigational prowess in their journeys thousands of miles across the Pacific. Thomas Gladwin’s study of traditional techniques in Puluwat Atoll (now Republic of Micronesia) recounts a striking approach to thinking about location and navigation in this part of the world:

“Picture yourself on a Puluwat canoe at night. The weather is clear, the stars are out, but no land is in sight [...] On either side of the canoe, water streams past, a line of turbulence and bubbles merging into a wake and disappearing into the darkness. Overhead there are stars, immovable, immutable. [...] You may travel for days on the canoe, but the stars will not go away or change their positions aside from their nightly trajectories from horizon to horizon. Hours go by, miles of water have flowed past. Yet the canoe is still underneath and the stars are still above. Back along the wake however, the island you left falls farther and farther behind, while the one toward which you are heading is hopefully drawing closer. You can see neither of them, but you know this is happening. Everything passes by the little canoe - everything except the stars by night and the sun in the day.” [6]

Puluwat navigational concepts are based on the idea that one’s vessel is stationary, whilst it is the flow of the streaming miles of water that moves, carrying seafarers from one island to another. We are literally ocean borne. Traditional navigational knowledge based on interpretation of signs observed while journeying is passed down to chosen individuals by initiation and apprenticeship: star paths, bird and marine animal sightings, drifting weeds, recognition of clouds and oceanic swell patterns, of the influence of submerged topologies on the appearance and behavior of water, are just some of the means with which navigation has been refined for thousands of human seafaring years.

Mapping abilities of indigenous Pacific mariners flexibly combine mental or ‘ghost’ topographies with real environmental cues. They demand skilled use of concepts like the Carolinian *etak*, the journey segment calculated by triangulating starting and destination points with a reference site that may be an abstraction or ‘phantom island.’ While the *etak* of sighting (an island) and *etak* of the birds (signaling proximity to land) are of fixed length (about ten miles), others differ as a function of where they occur on the overall trajectory. The *etak* allows imaginative reconstruction of the environment, where real or ‘ghost’ topography can be mobilized to read sidereal star bearings on the horizon. For anthropologist Michael Gunn, the *etak* means that “what is needed to be seen *is* seen and if it is visually obscured or non-existent then it is imagined.” [7] Traditional navigational

knowledges thus intertwine real cues and mental scaffolding – i.e. a mix of actual and virtual references, like those of our modern artifact-based computational systems – through a combination of empirical and symbol-based training.

FISH OUT OF WATER?

It is ironic that the Pacific, the place where these knowledges have been so highly developed, the biggest chunk of our hydrosphere covering a third of the Earth’s surface (more than all its land combined), inhabited by scattered groups of seafaring islanders, should be a site of acute dislocation as globally warmed waters overwhelm its populations. In 2014 a family from Tuvalu, one such doomed nation, was granted New Zealand residency on humanitarian grounds. This creates a major precedent, given that climate change induced displacement is predicted to affect up to 300 million people by 2050. Kiribati, chronologically the first nation to wake up because of where it sits on the international dateline, for all its 33 atolls and islands spread over 1.3 million square miles, has been vainly trying to wake up the rest of the world to its plight for over a decade. With a population of 100,000, its predicament is however less visible on the international stage than that of famous drowning locations like Venice or Miami. Seven years ago the Kiribati government asked Australia and New Zealand to accept its citizens as permanent refugees when they no longer have a country and launched a “migration with dignity” campaign.

As though dealing with these issues were not enough, Kiribati also has to bear the brunt of its powerful neighbors’ wrath provoked by efforts to limit fishing time demanded by the billion dollar American Samoa-based tuna industry and by parallel Asian consumer pressure (a single 222kg bluefin tuna sold for £1M at a 2013 Tokyo fishmarket auction). The imperative to reduce fishing quotas stems from the catastrophic decline in Pacific bluefin tuna breeding stock, estimated - the same year as the record-breaking Tokyo fish auction - as representing a 96% decrease with respect to unfished levels. This drop is largely imputable to indiscriminate harvesting of juveniles which rules out reproduction, thus longer-term species survival. Additionally, ruthless industrial fishing methods that decimate shark and sea turtle populations and generally destroy ecosystems, make it increasingly difficult for the islanders to feed themselves, on top of losing their land and fresh-water access.

It must be hard to keep a sense of being rooted or located, let alone a sense of dignity, as the inhabitant not just of an island but of a “sea-land” environment on which one’s lifestyle depends, that is being steadily dissolved by waves of greed, inequality and Anthropocene-imposed exile. It is tricky to raise such issues from the vantage point of a privileged cultural gathering like ISEA, marked by disturbingly heavy carbon footprints. But if we are fortunate enough to be here, we are thus uniquely placed to reflect on the responsibilities we have to assume, in keeping with our uniquely critical, communicational arts practices.

SITUATED KNOWLEDGES AND ETHICS OF LOCATEDNESS

In a text closely linked to themes of this location-focused event, Donna Haraway shows how the god's eye view of self-proclaimed scientific objectivity is just one positioning strategy amongst others, albeit one that is productive in many domains, including navigation. [8] Enriched by various remote viewing and modeling technologies, modern cartography strives to reconcile regional visions with a global overview which seemingly – if not actually, via satellite relays – emanates from on high, from above and beyond the world. But its universalist positioning makes this an ultimately irresponsible strategy: if you are not situated or located somewhere, how can you be held answerable? Haraway's questions - how to see? where to see from? what to see for? whom to see with? who gets to have more than one point of view? who gets blinded? who interprets the visual field? – open up issues of location and situation, where partiality rather than universality is the condition of making rational knowledge claims. Against top-down visions, Haraway defends politics of interpretation, translation, stuttering and the partly understood, sciences of the multiple subject with (at least) double vision, of power-sensitive conversation.

Cross-cultural anthropology emphasises the incommensurability of differing knowledge traditions because of their distinctive ontologies and epistemologies. [9] The solution is not to pretend that these differences can be reined in under some massively hegemonic umbrella – the 'god trick' denounced by Haraway – but rather to seek out new terrain – locations, situations, conversations – that can accommodate and promote pluralism. Joanna Zylińska's definition of ethics as a specific mode of locatedness resonates with ISEA's theme and related questions of artistic responsibility:

"Ethics is a mode of human locatedness in the world which involves a recognition of the processual and unstable nature not only of any such locatedness but also of the human (that is) thus located. It also involves the human in giving an account of the modes of relationality that ensue. [...] ethics is a historically contingent human mode of becoming in the world, of becoming different from the world and of narrating and taking responsibility for the nature of this difference." [10]

If our idiosyncrasy as a species resides in our need to create utopian works through scientific, artistic and technological forms of expression, this same idiosyncrasy (*idio*: personal, private, peculiar), can perhaps be read as constituting an extreme form of located knowledge. [4] Ideas of singularity and peculiarity thus bring us back to the sited and the situated. We might thus attempt to draw a parallel between the specificity of situated knowledges, i.e. knowledges mindful of locations and of the navigational processes by which they are attained and the singularity of our creative projections, which are the first step towards our being able to imagine things otherwise. Art is what I call a mutagen for the collective imagination - a vital means for us to evolve the capacity for projection on which our survival depends.

As creative extremophiles and exploratory tropists, our scope for wayfaring is extending to previously inconceivable temporal and spatial realms and scales of existence, on our planet and in the cosmos and in expanding data universes. Gone are the days when smallest and biggest could be based on obvious biome inhabitants like plankton – the original drifter, as denoted by its etymology – and the whale, its consumer and the largest animal on our planet. Today we must deal with contrasting scales and worlds, like the parallel *Umwelten* described by biosemiotician Jacob von Uexküll as the concurrent, discrete but sometimes coinciding ecological niches of different species. [11] We must expand and tune our perceptive and cognitive abilities accordingly, in ways that take into account the new relational modes and responsibilities ensuing from our technozoosemiotic natures.

TUNING TO SCALES OF BEING

One of the most unusually scaled and synchronized human missions underway today is that of the Mars Science Laboratory on Curiosity, which seeks traces of organic, possibly prebiotic chemistry to help reconstitute the Red Planet's history. The mission demands superhuman, extraterrestrial coordination: French instrumentation for carbon compound identification (SAM – Sample Analysis at Mars) is monitored from the Centre National d'Études Spatiales control room in Toulouse and technically run via NASA's Goddard Space Flight Centre in Maryland. The ChemCam laser camera system to determine rock composition, likewise part of the French payload, is also monitored at CNES and run from Los Alamos.

Interdisciplinary teams whose work depends on correlated findings jointly plan Curiosity's missions to allow time to harvest and process data for their respective needs. The Toulouse team works afternoons and evenings to synchronize shifts with partners in various US sites and others based in Ontario, Moscow and Madrid. The ultimate clock, however, to which all must work, wherever on our planet and its time zones they happen to be located, is that of Martian time. This is especially crucial because of the constraints imposed by Martian daytime: the Rover's functionality is dictated by its solar panels (there is no buffering atmosphere like ours at dawn and dusk, so thermal shock is massive). Fortunately the Martian Sol (solar day) is of a comparable duration to ours (24 hours, 39min, 35.2 seconds), yet there is still something uncanny about the antics of a collective of earthlings in different parts of the globe, tuned to "Mars time" to navigate a planet that, when it most recently neared ours in 2003, was 35 million miles away.

The need to recalibrate our cognitive, conceptual and communications apparatus to deal with the infinitely up- and downscaled universes we have generated and made accessible through our technologies was the subject of an inspiring Siggraph presentation given twenty years ago by psychologist Ron Pickett from the University of Massachusetts Lowell. Pickett compared our explorations of the nascent digital wilderness with the

expeditions of Alexander von Humboldt and Aimé Bonpland, who sailed from Europe to the Americas in 1799, scaling the Andes and canoeing into the heart of the rain forests, noting geographic, botanical, archaeological, zoological findings and creating new domains of climatology, geology, oceanography and ethnography.

Recording evidence of exotic species including un-collectable flora and fauna meant mobilizing all the senses as well as scientific instruments: they had to look and listen, touch, smell and taste specimens to describe them as fully as possible (some of their experiments were deadly for test species and von Humboldt himself was reported dead on three occasions). For Pickett, our era, like von Humboldt's two centuries ago, demands new methods and tuning of the sensorium. To locate ourselves in this instrumentalized, computationally hybridized world, we must venture into unknown terrain and learn to calibrate and hone our perception, seeking new abilities to respond (response-abilities) through the mobilization of our innate physiological and of our increasingly extended, prosthetized sensorium.

If tuning is a kind of calibration, then we need to bear in mind the fact that calibration requires the apparatus and the operator be in a specific place or location. You can only tune something or yourself, to something or someone else, if it or you are situated somewhere (echoing Haraway's insistence on situated knowledges and Zylinska's definition of ethics as a mode of human locatedness). Location and local knowledges are vulnerable because they resist closure, yet only such knowledges allow us to come up with engaged, responsible accounts of the world: rather than going from the lofty summits of universal theories to particular instantiations, we can productively think in terms of moving from one local knowledge to another, gaining abilities and agilities through this journeying, this conceptual navigation or wayfaring. For privileged, freely roving communities like ours, whose contact details increasingly consist of ubiquitous dot.org or dot.edu type means of address, attention to local knowledges and location seems all the more important.

In this wayfaring context, we need the poetic power to forge narratives as compellingly different as the magical Puluwat account of voyaging, where miles of water move around a stationary boat. We need the courage to follow the injunction of the Fisherman of Halicarnassus, Cevat Şakir Kabaağaçlı, to board a ship, steal the wind with a tiny piece of canvas and the aspiration of discovering, sailing ahead and progressing, ignoring fears of sea dangers and the possibility of death, and setting out instead to find new places, new worlds. [12] Our ship is the arts, which are our craft for sailing, for tuning our collective imagination to new possibilities and places that let us project, think and feel differently. Art works are contagious (con-tangere-to touch with). They touch us and through the arts we touch others, attaining what in Māori is called 'raranga tangata,' 'the weaving together of the people.' Through the arts, tuning and crafting idiosyncratic works that lend themselves to multiple viewpoints and

interpretations, to the upholding of dialogue and respect for otherness, we can perhaps best ensure response-able, sense-able, shareably located experience.

Shukrān.

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