



The Walk Series (c) 1973-74 / 2010 Peter d'Agostino distributed by eai.org

Techno / Natural Interfacing: walking and mapping in the age of climate change

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Abstract

The *techno / natural interface* examines a series of *World-Wide-Walks* projects from the 1970s to the present. The inquiry extends our work on *The Techno / Cultural Interface: tracking the boundaries of high-tech and traditional cultures* presented at TISEA, Sydney, 1992, and published in *Media Information Australia*, August, 1993. Originally inspired by Gregory Bateson's 'dialogues' and 'metalogues', concepts of mind and nature as 'sacred and necessary unities,' the *techno / cultural* ideas evolve from theories of *interfacing, identities, and consciousness* [1] to *techno / natural* concepts examined through the sensuous kinesthetic experience of walking and its mapping.

keywords: techno, natural, walking, mapping,
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Walking: Perception to Cognition

The *techno / natural interface* examines the theoretical foundation underlying a series of *World-Wide-Walks* projects from the 1970s to the present. The *World-Wide-Walks* documentation / performances explore 'natural / cultural / virtual identities' mediated by video / web / GPS tools, and contextually framed *between earth & sky* and *between earth & water*. [2] The current projects examine an art/science interchange of water related issues.

The *World-Wide-Walks* project assembles micro meaning within natural and mediated cultural environments. The act of walking, literally and metaphorically, from first steps to daily

routines, contributes to the formation of the individual and his/her human identity, forged by the individual's navigation, thought, and participation in shaping a changing global eco-environment.

The *World-Wide-Walks* project bridges a broad territory. The territory combines technology - its development and study; nature - monitoring the myriad and many changes in flora, fauna, climate; and the arts - an agency negotiating humanity's relationship to eternal questions of meaning and understanding. In this era of human-made global warming, technology challenges the "natural" order. The arts strive to meet this challenge. The *World-Wide-Walks / between earth & sky / Donegal*, a Leonardo / Art & Climate Change project in Ireland focused on community, the landscape, tradition, and its preservation, beneath the umbrella of modern civilization [3]. *W-W-W / between earth & water / ICE* performed at glaciers in Alaska, Iceland, and Terra del Fuego, Argentina, at the top and bottom of the globe, provides compelling global warming evidence, as it relates to 'glocal' issues of local now global communities.

The *World-Wide-Walks* project, performed on five continents over the past four decades, began in 1973 with *The Walk Series*, Peter d'Agostino's documentation / performances in San Francisco. In this first series, d'Agostino explored boundaries, the relationship of earth to sky, a fence separating park and freeway, and the beach separating the ocean from the land on the edge of a continent. The first walk, *Roof Walk*, an 'absurd exercise' walking a roof, maps the gravel surface and captures the great vision of the City beyond the (l)edge. The next walk in the winter of that year, *Fence Walk* moves back and forth along a metal cyclone fence separating a small city park from the state freeway, which strictly prohibits walking.

Beach Walk, the final (1974) walk of this trilogy, moves across San Francisco's Ocean Beach. Symbolically, it marks the separation of the West from the East [4]. *Beach Walk* proceeds across the Great Highway, down a concrete barrier stairway to the beach and ends at the Pacific Ocean. While the coast marks the finite limits of the City, of the State, of the Country and the Continent, it also marks the end of an important, and potent signifying era in American history, the migration across the continent in the quest for new horizons, new land, new opportunity - the West. Ironically, with nowhere to go, d'Agostino leaves the camera on a tripod. The video continues recording the walker on his passage across the beach eastward, toward the City. The video ends when the walker disappears through the stream of traffic moving north and south on the highway.

Further east during the summer of 1974, d'Agostino's walk project continued as he backpacked California's Sierra Nevada Mountains. His *pond / pass / peak* (1974) resonates alongside Ansel Adams' historic Yosemite photographs, and Cheryl Strayed's recent memoir *WILD*, as shared experiences of the Sierra Nevada Mountains. Miles became "long, intimate straggles of weeds and clumps of dirt, blades of grass and flowers that bent in the wind, trees that lumbered and screeched. They were the sound of my breath and my feet hitting the trail one step at a time..." [5]

Walking redefines knowledge on a human scale of a world hovering between the virtual and real. Walking also represents a challenge, a quality of life struggle, for many indigent and elderly people. Walking mediates their relationship with their internal health, with the external environment, and with life itself.

Beyond mobility, walking covers a gamut of experience, an infinite terrain of perceptually driven cognitive concerns. Along each path, each walker

can locate different signifying junctures: registering notable landmarks along the path - "wayfinding," mapping the path taken - "sequence," combining the two into a mental configuration. Treading new and retreading old paths, individuals survey their knowledge, forging an odyssey of history and discovery [6].

Walkabout: located and lost in the Twentieth Century

In a traditional rite of self-discovery, initiation and education, young Aboriginal men came of age by walking their country to learn about history, politics, time and space, geography, horticulture, fauna, natural boundaries, language. Walkabout lived the coding and decoding of family and tribal history. The natural features of the earth inscribed that history. The people made sense of the earth in human terms, generating narrative that stirred the imagination, defined the Law, and delineated relationship [7].

In the age of television, walkabout diminished. Losing that profound contact with the environment, losing the stories shared, the Law, the community suffers. Identity at best becomes confused, damaged, at worst disappears in the miasma of self-abuse. The earth, no longer a source of human identity, becomes vulnerable. As the walker struggles to reclaim the natural in nature, the land relinquishes its reservoir of history, identity, the essence of meaning [8].

Aboriginal people still walk the earth in bare feet, to feel the connection with the soil, with country. Walking remains grounded, the body navigating a temporally defined space. Walking, however, changes over time. Even in central Australia with walking traditions that lingered long into the Twentieth Century, the "Toyota" (a generic word for "car") prevails. The outback tracks now accommodate the trucks. The tracks have become wider, straighter, and more meaningless than the old trails, which led to rock holes, family country, and spiritual sites [9].

Walking has taken on a different meaning, beyond transportation. Walking offers meditative space amidst numbing sensory overload. Walking can heighten engagement, resurrect the contact lost between the individual and the environment, help mediate the human condition - the frail body treads a changing, volatile environment. Each "temporary" landmark denotes meaning, a space inscribed with memories,

histories, and a spiritual connection with the mystery beyond any contemporary capacity for understanding. The art from walking helps navigate that complex inner scope of fear, love, desire, disappointment, and satisfaction.

Art: Historic Contexts from 1913 to 2013

Leah Dickerman, a curator at New York's Museum of Modern Art, argues that the transformation of 1913 shook "the foundations of art conception." It remains unmatched by all of the cultural movements that have since transpired. Historian Valerie Paley notes that the *Armory Show* in 1913 paralleled Einstein's imminent new theory of gravity, Freudian psychology, electric lights, architectural heights, the dawn of a different time, a new way of thinking [10].

In the 1920s, Dziga Vertov, founder of the *Kino-Pravda* group, championed the use of media technology to heighten awareness, if not revolutionary thinking. In his manifesto, Vertov writes

Cinema is ... the *art of inventing movements* of things in space in response to the demands of science; it embodies the inventor's dream... - that which cannot be realized in life...

Drawings in motion. Blueprints in motion. Plans for the future. The theory of relativity on the screen [11].

In Vertov's manifesto, technology enhances primary vision. In *Man With a Movie Camera*, Vertov forges random distilled events in the life of a city into systemic operations.

A number of artists have integrated walking as part of their explorative methodology, most notably, the Situationist International's practice referred to in Guy Debord's, *The Naked City* (1957); Richard Long and Hamish Fulton's photo/text works beginning in the 1960s. The recent *Walking Artists Network* in the United Kingdom examines walking as an art practice integrating "the related fields including, but not limited to, architecture, archaeology, anthropology, cultural geography, history, spatial design, urban design and planning." [12]

Some media artists conjoin the cinematic linearity of the walk experience as a diaristic construction. Media tools help to map out the many signs chosen along the trail. In their recording (constructed memory), the

coherent observations and/or statements form a larger text.

A century later, the mapping of the human genome, the looming implications of the singularity, the burgeoning human population, the explosion of human communication, the proliferation of flying, the formation of new alliances, the threat of climate change challenge "figurative, oral, literate, and electronic representations to form not merely a continuous but an ever-widening stream, one in which there is now the potential for combinations and synergisms..." [13]

Taking note of the present, looking at traces of the past, searching for signs of the future, the *World-Wide-Walks* project represents one part of that collective effort.

Walking: Pointing to Recording

Biped walking liberates the upper limbs to point, mark, and negotiate the environment. Mobility expands the capacity to explore and acquire language. Children point to the objects in their environment. They reach, probe, define their relationships, forming a neural network "continuously linked to the visual parameter." "The dynamics of the system in the cycle" link motor control with surrounding perceptions. (de Rugy et al. 2002) Pointing to a target implies some experience negotiating the terrain. On the most elemental level, walking integrates form, context; muscular knowledge of the topographic experience. The tracking skills of an Indigenous native embody the most sophisticated form of engagement.

Recording distinguishes human walking from the movement and marking of other animals. In the caves, humanity left imprints of hands, and painted bison, forming ritualistic spaces. Over time, recording methods and machines become more mobile and sophisticated. GPS devices from unseen satellite observation posts transform the reflective experience.

Situating the recorded walks within a virtual environment, such as the World-Wide-Web, mapping territory creates new meanings. The map no longer represents the territory but transforms it (as discussed in Baudrillard's *Simulacra*). How ironic, in a world where behavior mimics television, video reconstructs memory of place. "Although life can only be lived forwards, it can only be understood backwards... The complexities of time, culture, and



World-Wide-Walks / between earth & water / RIVERS Gauge: Mississippi / Nilometer: Egypt (c) 2011 Peter d'Agostino

environmental change over the last 10,000 years are such that a unified and comprehensible historiography is still some way off." [14] The memory turns in on itself, compounded by new thoughts, connections and observations becoming another social dimension of collective experience.

The walk combines kinesics (i.e. body movement), anthropology, politics, nature, physics, art... The walker strings together the associations, the dialectic, the recollections. If recorded, the walk becomes a footprint on the sand with all sorts of indexical markers. "History shrivels into a mere wrinkling or furrowing of the surface as in an aerial relief-map..." [15] The markers remain fixed but interchangeable memories.

As the inventory of walks compile, the multiplicity compounds the experience individually and collectively by placing each walk into a larger context, sometimes a much larger context as the *World-Wide-Walks* stretch on over many years. As the years compile, those patterns form footholds in the ongoing recording experience, an indelible part of the encounter with the subject, an inscribed but fragile map. Even digital worlds remain subject to the contingencies of an uncertain environment. Traces of footsteps can disappear in a heavy rain. As stated by Maya Lin (an architect and environmental artist), "A flood doesn't exist except in our memory banks. It's a temporal event. It's not the river and it's not the land. It's neither here nor there." [16] Digital footsteps can disappear without a cyber trace. Every footstep occupies a temporal moment, forever inscribed in a universe without history beyond society's capacity to forge that history. Walking captures that fragility on the ground.

Walking forms a part of the universal mapping project. Footsteps become paths when retread many times.

Highways supplant footpaths; footpaths replace rail beds. A walker's vision embodies each step, each muscular cue, each visual synapse and the constituent linkage(s). Images become more meaningful when viewed repeatedly. The *World-Wide-Walks* map solitude, contemplative time and space in the real world.

While we have been primed to appreciate parks as restorative preserves of 'nature', not as remnants or fabrications of what was, the aestheticization of natural environments is fast creating a global museum in which everything from species through land-use systems to whole eco-systems are 'preserved', as they are elsewhere threatened, transformed, erased. [17]

The walker as artist deactivates the environment as a factory of production separate from the preserve of nature. The walker taps the territory as a human frontier. As the outer frontier on the planet diminishes, a micro frontier of discovery beckons.

Environmental Change and Eco-Art

With the cyclical chaos of nature wrestling with humanity's economically driven development, the land changes (from coastal marshes and barrier islands to housing tracts) as does its border configurations. The memory of a particular place might linger for a generation or two, before its transformation relegates it to a story, retold over and over again.

A new virtual environment emerges, an augmented space. The augmented landscape becomes a temporal trace of a non-existent space, a moment that only has meaning as memory. That memory may embrace a larger world undergoing significant climate change. In May 2013,

instruments atop Mauna Loa, the volcano on the big island of Hawaii, ground zero for monitoring global carbon dioxide levels, recorded a significant milestone. Carbon dioxide reached a daily average of 400 ppm, a "concentration not seen on earth for millions of years." [18] Humanity cannot survive the separation of 'actual' and 'augmented' identities. They combine to form the broader realities.

Technologists ponder solving environmental problems using technology. Naturalists seek a restorative resolution by reintroducing wetlands. Art negotiates the culture in the center. "Eco-artists" Newton and Helen Mayer Harrison's work begins

when [they] perceive an anomaly in the environment... the result of opposing beliefs or contradictory metaphors. Moments when reality no longer appears seamless and the cost of belief has become outrageous offer the opportunity to create new spaces – first in the mind and thereafter in everyday life. [19]

The generation of Buckminster Fuller, who contemplated putting a dome over Manhattan, John Cage, who warned that improving the world might simply make matters worse, and their contemporaries used irony, the latent absurdity of things, as a strategy.

World-Wide-Walks

The *World-Wide-Walks* have been performed on coastlines in the U.S., Venice, and Australia; and along rivers in the U.S. (the Delaware in Pennsylvania; the Mississippi in Louisiana; and the Sacramento in California) and along the Egyptian Nile. [20] Recent walks beside glaciers in Alaska, Iceland, and Argentina note cataclysmic evidence of climate change.



World-Wide-Walks / between earth & water / COASTS Atlantic City / Venice (c) 2013 Peter d'Agostino

With global warming's shifting thresholds, extreme weather events threaten to trump average conditions. Lagoons and coastal wetlands mark the transitional zone between terrestrial ecosystems and the adjacent seas - "the most changeable and vulnerable environments on Earth." [21] *World-Wide-Walks / between earth & water / COASTS* focus on this zone of transition. **New York / New Jersey Atlantic Coast.** Along the New York and New Jersey coasts with nearly twenty million residents, Hurricane Sandy swept ocean surf into communities and river water across parts of Manhattan's financial district, into its subterranean transportation and electronic systems. Two weeks later, *Atlantic City Walk* along the beach captured Army Corps of Engineers Caterpillar devices restoring sand to the coastline, rebuilding the beach. No longer natural, the beach becomes fantasyland, a playground of umbrellas, blankets, and recreational activities. Unlike Disneyland, however, the beach embodies still the total illusion concealing its augmented nature.

Venice (City of Water). Venice hovers between recurrent flooding (as recently as 2012), and drought, which exposes and rots the wooden beams upon which the city rests. "A time series at least 50–60 years long must be used to identify a meaningful tendency." [22] The *Venice Walks* span twenty years of that half-century. Venice, too, moves from the real to augmented reality. With ever increasing climate related extreme weather conditions in Venice, a hi-tech artificial gates project, the MOSE (MODulo Sperimentale Elettromeccanico, Experimental Electromechanical Module) will allegedly provide some protection for this historic city after 2014. Nothing in

this technology, however, counteracts drought.

Queensland (droughts and flooding rains). *Cairns Walks* along Australia's coastlines, performed in 1993 and in 2003 presaged Queensland's recurrent "hundred year" river flooding events from 2010 through early 2012.

With coastal regions under siege, walls and mobile gates may only provide temporary solutions for the wealthiest cities. A better understanding of wetlands, those naturally occurring areas between earth and water, might provide a key for addressing these coastal problems - not that this or any other problems can literally - in the words of Saint Augustine "*Solvitur Ambulando*" - be solved by walking. But recording walks on coastlines, along rivers and beside glaciers over a period of time creates a heightened awareness of disappearing natural resources. These direct experiences lead to knowledge and awareness that ultimately contribute to mobilization.

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