

Holographic Epistemology: Native Common Sense

Manulani Aluli Meyer

Te Wānanga o Aotearoa (Māori University of New Zealand), New Zealand

Abstract: We communicate through our world view shaped within knowledge systems prioritized by the needs of people and the lessons of place. This article simplifies indigenous epistemology with the latest insight of post-quantum sciences. Holographic principles and practices are used to design a (k)new understanding of the philosophy of knowledge inclusive of all three aspects of nature: physical, mental, *and* spiritual. Holographic epistemology details the simultaneity of this trilogy without collapsing knowledge into dogma or well-intentioned patterns of philosophy that instead oppress, dismiss and make uniform. Indigenous epistemology combining with quantum clarity creates a new-old-wisdom helping simplify complexity into purpose and common sense once again so observable knowledge can be valued once more. We are moving from text into context through consciousness and the crisp qualities found in active engagement. *Ulu ka le'ale'a*. Let joy rise! [China Media Research. 2013; 9(2): 94-101]

Keywords: Indigenous epistemology, holographic epistemology, philosophy of knowledge, post-quantum science, simultaneity, holographic, new/old wisdom, consciousness, observable knowledge, contextual learning

Research in a Maori sense seeks to expand knowledge outwards (te whanuitanga); in depth (te hohonutanga); and toward light (te maramatanga).—Hirini Moko Mead

Knowledge is embedded in the culture of the people. Knowledge comes through in the lives of the people.—Una Nabobo-Baba, Fijian

Aloha is the intelligence with which we meet life.—Olana Kaipo Ai

In ancient systems around the world there are inevitably three main ways in which to view and experience knowledge: (1) via the objective, physical, outside world, the world of science and measurement, density and force; (2) via the inside subjective world, the space of thought, mind, idea and interiority that helps us understand meaning and our linkages with phenomenon; and finally (3) via the quantum world shaped by transpatial descriptors and intersections, a spiritual dimension un-linked to religious dogma, described in ethereal, mystic, and yet experiential terms: ie: *All my relations*; or in Science: the *Implicate Order*. Simply put: *body, mind, spirit*; or in Maori: *tinana, hinengaro, wairua*. Hawaiians refer to this epistemologic trilogy as: *manaio, manaolana, and aloha*; Fijians see it as *vuku, kilaka* and *yalomatua*.

The challenge is to not see this trilogy as a linear sequence, rather as an event happening simultaneously and holographically.¹ In and of itself, each category exists potentially untangled and separate. Here is the state we are now in within classical physics and our current scientific epistemology. Objectivity is divorced from subjectivity and both are synonyms for the

hard/soft sciences while the topic of spirituality has become a pink crystal New Age embarrassment to all forms of Science. The trilogy has become a dysfunctional family. Here is where we heal. *Right here.*

Quantum Mechanics has established the primacy of the inseparable whole. For this reason, the basis of the new biophysics must be the insight into the fundamental inter-connectedness within the organism as well as between organisms, and that of the organism with the environment.—Marco Bischof

If we are to alter and explore a more robust version of reality then here is where our suspension of disbelief can be practiced. Here is where faith in wholeness and interconnection is rigorously definitive. Here is where indigenous realities, contexts and understandings can benefit from cross fertilization with Western classical sciences because a hologram is made with modern techniques but its implications are best understood with an ancient mind: *The whole is contained in all its parts.*² Body/Mind/Spirit is One idea. Or as quantum physicist David Peat explained: *The ground out of which matter emerges is also the source for consciousness.* Here is a (k)new idea³ we can all investigate together. Holographic epistemology thus helps us better understand the depth and rigor of an indigenous mind, but first we must understand our own.

The following table gathers in one place this holographic image, using three 'laser beams' to bring out facts, logic *and* metaphor to help us get to this 'inseparable whole' we have known all along exists. It is separated now for discussion only, and only for a moment! Now the *seeing*:

Table 1: Holographic Epistemology—Native Common Sense

Body	Mind	Spirit	(source)
Perception	Conceptualization	Remembering	<i>Yoga Sutra</i>
Manaio	Manaolana	Aloha	<i>Native Hawaiian</i>
Techne	Episteme	Phronesis	<i>Aristotle</i>
Objective	Subjective	Cultural	<i>Karl Popper</i>
External	Internal	Transpatial	<i>Ken Wilber</i>
Mōhiotanga	Matauranga	Māramatanga	<i>Māori</i>
Instinct	Intelligence	Intuition	<i>Hale Makua</i>
Empiricism	Rationalism	Mysticism	<i>Ken Wilber</i>
Facts	Logic	Metaphor	<i>Mike McCloskey</i>
Gross	Subtle	Causal	<i>Ken Wilber</i>
Seeing	Hominisation	Convergence	<i>Teilhard de Chardin</i>
Technical Rationality	Hermeneutic Rationality	Emancipatory Rationality	<i>Henry Giroux</i>
Consumer Intelligence	Re-Creative Intelligence	Creative Intelligence	<i>Molefi Asante</i>
Hearing	Thought	Meditation	<i>Buddhist</i>
Life	Mind	Joy	<i>Upanishads</i>
Tinana	Hinengaro	Wairua	<i>Māori</i>
Force	Power	Liberation	<i>David Hawkins</i>
Knowing	Knowledge	Understanding	<i>Manulani Aluli Meyer</i>
Coarse	Subtle	Secret	<i>Buddha</i>
Vuku	Kilaka	Yalomatua	<i>Una Nabobo-Baba</i>
Sensing	Presencing	Realizing	<i>C.O. Scharmer</i>
Ways of Knowing	Ways of Being	Ways of Doing	<i>Veronica Arbon</i>
Voice	Thought	Silence	<i>Rumi</i>
Classic	Relativistic	Unified	<i>Brian Greene</i>
Dense	Dynamic	Still	<i>Nityananda</i>
Tamas	Rajas	Sattva	<i>Upanishads</i>
Interpretation	Mythic Maturation	Gnostic Revival	<i>Taupouri Tangaro</i>
Measurement	Reflection	Witnessing	<i>Manulani Aluli Meyer</i>
Ike (to see)	Ike (knowledge)	Ike (revelations)	<i>Native Hawaiian</i>
Duality	Non-duality	Wholeness	<i>Ken Wilber</i>
Emotion	Feeling	Awareness	<i>Spinoza</i>
Pleasure	Happiness	Bliss	<i>Osho</i>
Temporal	Noetic	Ineffable	<i>William James</i>
Sensing	Thinking	Awareness	<i>Eckhart Tolle</i>
Matter	Consciousness	Super-consciousness	<i>Vedic texts</i>
Experiencing	Processing	Awareness	<i>David Hawkins</i>

Is this idea of a hologram using three ‘beams’ clear for you? Look at the list again. *See it with your own expansive awareness.* Lend your consciousness to its purpose and you will intersect with my own, across space/time, and we will be in sync with each other. Familiarize yourself with the three categories: Body, Mind, and Spirit. Do you hear their distinctive harmonics?

Do you see how the location of the idea describes the boundaries/freedom of that idea? No judgment here, just an observation of what the physical plane offers, what the mental plane offers, and what the spiritual plane offers. Here is a radical and profound simplification of a (k)new world epistemology

Indigenous people and allied scholars are putting forth. Ken Wilber refers to this trilogy as The Big Three. Pythagoras described it as the three Principias. Swiss Renaissance alchemist, Paracelsus, called it the Three Levels of Self. Hale Makua, Hawaiian elder-mystic, called it the Three Souls. Vedic texts referred to this trilogy as the Three Categories of Nature. It is found in the *Tao Te Ching*, chapter 42:

The Tao gives birth to One.
One gives birth to Two.
Two gives birth to Three.
Three gives birth to all things.

I had once referred to this process and thinking as the Triangulation of Meaning. It was meant to bring coherence between the three operating principles, but it gave the impression of a linear sequence and unnatural hierarchy. I had initially thought that information came first in some kind of text or noun form, then it was experienced, *then* it was understood. Here is the dilemma of our schooling system. For years I've been trying to understand what happens simultaneously and yet it was described as sequence, the lock-step approach found in modern expectations more interested in quantity, control and time rather than *quality, consciousness, and space*.

I now see these sets of three as holograms to collect, play with and trade with others. There is a clear knowing that each beam in the hologram is necessary to bring forth the fullness of its essence, form and purpose. See, there it is again: Mind/Body/Spirit. A holographic approach to knowledge has changed everything in my own life and scholarship. It is no longer simply about *technical rationality*, as Henry Giroux (1988) has detailed. It is about *hermeneutic rationality* and *emancipatory rationality*. It is about my own authentic interpretation and the freedom experienced when I render it clearly with an interest, reverence and understanding of context/content. That has indeed changed *everything*.

Three Whole Ideas – Separately

Body: External, Physical, Objective, Content

Context is the content.—David Hawkins

Context is within. Content is external.—Roxanne Kala, Native Hawaiian

Here is one laser beam in the hologram we know how to operate. It is the beam we are most familiar with and the projection we can recognize, even if it only makes the understanding just three dimensional. The physical/body aspect of holographic epistemology is the foundation of Science, of classical Physics, of positivism and all its empirical measurements and verifications. The physical world is an outside phenomenon we experience through our senses. It's our scraped and bloody knees from a hill we knew would thrill us. It's the flash of light you saw come before sound and boats listing at low tide. It's the weight of a premature baby in your one hand. It's the color blue in sky and water we knew quickened our pull for outdoor play.

Fundamental objectivity is also the basic ground for an Indigenous knowing because experience, over time/space, cannot occur without awareness of that which is physical, external, and the interacting agent

grossly encountered outside oneself. Complex, dense, weighable. The physical aspect of holographic epistemology is knowledge that comes from direct experience, a knowing because it has been encountered, registered and remembered in bone and muscle. It is also knowledge gained by the full spa treatment of a Scientific regime: time, weight, mass, velocity, etc. The physical world is a world that can be predicted, controlled, shot into space. It extends the life of our hearts and kidneys, and cloned itself by its own hand.

Indigenous scholarship is simply asking for an evolution of this idea with the heightened rigor of a just-as-real subjective and spiritual/quantum reality (aka: *culture*) we know exists and indeed celebrate. It is a call for critical consciousness and respect for other ways of knowing. It is what enduring practices-in-place have developed and processed: a knowledge ethic shaped by the needs of place and people. Here is *cultural empiricism*, so-to-speak, altered by seasons, the sharing of ideas with others, and with its own referential knowing steeped in ancestral memory. It is also real, alive and part of the external world – we just have different priorities and names for how we experience and express it.

Mind: Internal, Mental, Subjective

We must assume behind this force [in the atom] the existence of a consciousness and intelligent mind. This mind is the matrix of all matter.—Max Planck

The electron does not have objective properties independent of my mind.—Fritjof Capra

The great consciousness exists in my mind.—Oscar Kawagley, Yupiaq

Here is the laser beam we squirrel away as intimacy un-shared, a light we believe separate from quantifiable observability and our own bodies. Mind is the culprit in a qualitative quagmire and forever in some kind of conflict of interest. Subjectivity is the stain Science and research has not yet been able to wash away. The mind category of our holographic/indigenous epistemology is the relative truth of what is not seen but yet available via thought, idea, and reflection. The mind beam in our hologram is about insidiness, about the richness and infinity of difference found in our own humanity. Mind illuminates experience and brings forth meta-conscious awareness and purpose to detail meaning and interconnection. It is the maturing agency of collective and individual *thinking*. Without paper and pencil, without clock, without competitive comparisons—a thinking that inspires what Maori have called *aromatawai* or self-reflection that instructs and transforms. Paulo Freire (1985) called this revolutionary process of waking up *conscientization*, while Teilhard

de Chardin called it *hominisation* vital to the larger transformations of society; this capacity to reflect, to think, to *use* our minds.

Mind in this discussion is not the firing of neurons in our brain. It is the capacity to review an idea, to link what is known to new patterns, and to offer fresh understanding to reoccurring problems. Mind is the inside capacity that recognizes variations and brings forth their logic with symbols of shared meaning. It is the same as body, just from an inside vantage-point. Hawaiians refer to this idea as *naau*, or stomach region. It is the root word for wisdom: *naauao*, which means 'enlightened intestines'. I know, this idea may be hard to consume, but we must at least agree to its presence and legitimacy. *Mind matters*. It is the inside agency of body and the connecting essence of all that is material.

*Sensations originate in the body but it is the mind that experiences them. We say emotions come from the heart but it is the mind that is aware of them.—*Francesca Freemantel

How one develops mind is the focus of this paper. Do you see it separate from body? Do you see mind as a hindrance to technical rationality? How one sees mind is perhaps the turning-point of self-reflective subjective awakening. Remember, mind is one part of the trilogy necessary for our hologram to be fully operational. It is no less valuable, no more valuable than any of the other beams. It is what Indigenous scholarship brings forward as a segue to spirituality. We develop awareness through the mind/body of our own selves, and here is where the simultaneous immersion into quantum realities changes everything. From the beginning of space it has been this way. Don't you think it's *time* to understand it?

Spirit: Transpatial, Non-Physical, Culture

*At this point, the rational, conceptual aspect of the mind must let go, allowing a breakthrough into direct, intuitive experience.—*Francesca Fremantle

*Ulu a'e ke welina a ke aloha. Loving is the practice of an awake mind. Life, being an ascent of consciousness, could not continue to advance indefinitely along its line without transforming itself in depth. It had, we said, like all growing realities in the world, to become different so as to remain itself.—*Teilhard de Chardin

It is time/space to speak of the spiritual dimension of life. Do not curl away in anti-religious dismay or leap into dogmatic exaltation. This discussion of spirituality is not a religious idea, *we just think it is*. Shake that belief off and clear your mind. Wairua/wailua is as real

as the tangible and mindful realms. It has been proven, stitched, sung and experienced that *we are more than our bodies*,⁴ more than our minds. *Matter is not separate from spirit* and so here is the culminating idea of this chapter and the animating third beam that Indigenous scholarship confirms. It is the laser that popped images into three-dimensional holograms surprising the world with its implicate wholeness, even as shards splintered on scientific floors across the planet and we discovered *the whole of life is found in all parts*. That is as much a physical and mental idea as it is a miracle of the quantum world. For many Native peoples, this is basic common sense. It is a *culture* shaped around an environment and the specific needs of people.

Many synonyms exist for this idea of dynamic interdependence; this field of mind enmeshed within body as the causal agent in an unseen reality we have direct access to and indeed are the shapers of: The Implicate Order; Self-Organizing Systems; Auamo Kuleana; Coherence; Non-seperability; Fundamental character of reality; De-pendent Co-arising; Akashic Field; Paticca Samuppada; Interdependence; Systems Theory; Mutual Causality; Holographic Epistemology; Complimentarity; The Divine Milieu; Entanglement; Makawalu; Milestone of human thought; Whakapapa; Indra's Net; The Blanket; Undivided Wholeness; Universal Intelligence; Indigenous Epistemology.

Buddhists call this matrix the *expressible content of enlightenment* and their scientific collaboration is helping us understand our role in its creation or demise. The transpatial, contemplative, intuitive, loving, mystic, still, and joyful dimension is the ON switch of our lives. It's the third laser beam that makes sense of the other two. In Science it is an event-horizon of knowledge that is causing a re-thinking of classical epistemology and classical Physics. Do you understand this idea? We are all three realms: Body, Mind *and* Spirit - but we must be conscious of it to actualize them. Slow down, take a breath. Physical/Mental/Causal—three facets of one idea. *He 'ike kai hohonu*—here is deep ocean knowing.

The perceived contradiction is that spirituality has developed its own bureaucracy in the form of Religion and thus it has become an invalid source of scientific inquiry. Is it any wonder we ritualized our awe and gathered en-masse at unseen mysteries? Science needed to pull away from dogma and what was labelled as superstition; it is part of our shared history. We are not talking about returning to this way of viewing the world. What Native intelligence as an enduring pattern of thinking is putting forth with the aid of quantum sciences is the notion that a realm of unseen connecting patterns exist and we are the causal linkages that alter its capacity. There is a new/old game in town. It must include what has forever been present but denied because of the beliefs of the day. As always, Indigenous

peoples are near; watching, waiting, ready to be of service.

Indigenous World Views

Makawalu—A Hawaiian interpretation and practice of interdependence

The depth of relatedness is so powerful that it guides our lives. It is our Law. Karen Martin, Aboriginal

Wisdom is the recognition of the interdependence of things.—Sulak Sivaraksa

An Indigenous world view thus begins with the idea that relationships are not nouns, they are *verbs*. This basic notion of relationality, dynamic coherence, interdependence and mutual causality helps us see the *context* of an idea and people, tangible or not, and respond appropriately. The hard part of this notion is that you can't weigh verbs, well not really. Relationship as verb infers the *intentional quality* of connection that is *experienced* and remembered. Here we begin our walk into Indigenous epistemology; into the simultaneity of the unseen and seen. We are entering a wide-open field of knowledge production and exchange with priorities in *practice, relevance, context, consciousness, and shared common sense*. It is knowledge through *experience*, individual or collective, and a way of being via site-specific familiarity through years, generations, and life-times. In this way patterns emerge collapsing time into space and all unknowns into mystery and story. It is knowing shaped by purpose and knowledge prioritized by function. Finally, it is an understanding that has *endured* for a *reason*.

An Indigenous Weltanschauung⁵ then is indeed a challenge to bring forward because of the myopia of our independently trained minds. The vast amount of difference the world offers us is currently withering in a hailstorm of uniformity, capitalistic assimilation and literal renditions of reality asserting a predictable empiricism now waiting to evolve. It is at these very sites of tension, however, where the future of rigorous scholarship lies. For us to move forward in the exploration of indigenous ideas and to actually *see* other views of the world there is first a call for the suspension of currently held thought-patterns, particularly around knowledge, science, and reality.

There is a critical need for a new old way now.—Veronica Arbon, Arabana, Aboriginal

Indigenous is simply a synonym for *that which has endured*. It is not a nostalgic or romantic cast over objective data, nor does it dismiss what modernity has thrust upon us. It is a way of behaving that offers us

older ways to view the world. It is not meant to operate in lieu-of, but rather to synergize with classical views of science and now with a quantum world already dreamed of, debated and woven into art forms of function, reliability and beauty.

(K)new Science: An Indigenous Perspective

The perspective of Native science goes beyond objective measurement honoring the primacy of direct experience, interconnectedness, relationship, holism, quality and values, and they are specific to tribe, context and cultural tradition.—Greg Cajete

Science, the process to understand our natural world, is not a new idea; it is old. How it now unfolds within a mathematical, technical, capitalistic, and positivistic structure is relatively new. Engagement and meaning-making with our world is an evolutionary process, always present, that accelerates or expands with mature, conscious, and rigorous *reflection*. The opposite is also true: the understanding of our world remains static without reflection in a field of reference that mirrors itself with itself eventually pulling away from direct experience into a self-justifying loop. This is our current situation in my own field of philosophy, and I sense even in Science. We then begin to name events in isolation from others, defying contextual comprehension born through the ages and understood by those who have witnessed them, remembered them, and sung their lessons in the life exchanged.

The problem is not with the empirical data of science but with the contention that these data alone constitute the legitimate ground for developing a comprehensive worldview or an adequate means for responding to the world's problems. There is more to human existence and to reality itself than current science can ever give us access to.—HH the Dalai Lama

Here it is, a call for a comprehensive worldview in which to engage an idea, an object, a collection of artifacts. How does one evolve in this manner without exposure to other ways of thinking? It is the key challenge to address in modern society.

Hahai no ka ua i ka ulu laau. Plant a forest and the rain will follow. Native Hawaiian

To gain a sense of Native science one must participate with the natural world. To understand the foundations of Native science one must become open to the roles of sensation, perception, imagination, emotion, symbols and spirit as well as that of concept, logic, and rational empiricism.—Greg Cajete, Tewa Pueblo

Native Science practitioners do not separate mind from body, nor do they separate that from the quantum world. We are neither wistful about their union. Sensual cues, coupled with imagination and emotional awareness sharpens ones sense of rational empiricism, it does not diminish it. Here is the perceived contradiction Native Science offers the world: wholeness and mature understanding of systems by seeing patterns, both tangible and in-thought, of concrete, quantum and causal worlds.

In Blackfoot, objects that we see are simply descriptions; they are collective agreements only.
Leroy Little Bear

When you start seeing the world in patterns instead of laws, everything opens up. Vision itself changes.—Dolores LaChapelle

How does one enter this kind of epistemological arena where the integration of an idea *is* the understanding of it? To see patterns develop themselves and then intersect, fractal and converge with others in an infinite array of evolving life. How *do* you enter this kind of thinking/seeing? Here are the building blocks of *cultural empiricism*, the kind of empiricism that begins with a different sensory immersion, a heightened sense of context, and a whole different tool belt useful in shaping cultural priorities for different understandings. How will I describe this orange with an apple vocabulary?

The world is mind.—Vine Deloria, Jr.

Here again is the segue from indigeneity into the quantum sciences, this reckoning with simultaneity and our own role in reality production and scientific findings. When the world becomes mind, as Standing Rock Sioux world-scholar Vine Deloria suggests, he is inferring the radically empirical universe William James outlined almost 100 years ago.⁶ It is a connection with the physical and non-physical states altered by our own seeing. Einstein held the same belief that our own viewing of phenomenon changed it. Is it any wonder the Hawaiian word for knowledge is *‘ike*, to see/to know. Seeing then is an act beyond mere looking. Seeing is infused with the cultural shaping of its *purpose*, and that by itself collapses waves into particles. Yes, why not work to understand this miracle? Why not see what intentionality and consciousness have to do with matter?

Here lies the path across dangerous waters where science and culture must meet and cross if we are to develop solutions necessary for our own evolution. Here is where indigenous sits down to discuss the latest ideas in non-locality, coherence and the universe as a Self-Organizing System some have long ago called Indra's

Net, the Akashic Field, the Divine Milieu, Whakapapa, and the great Ancestral Plan.

Ha'ina mai ka puana: *Thus ends my story*

A modern "ecosophy" would be about the rediscovery of meaning as it relates to our universe. It would require not only a different way of thinking, but also a different way of knowing and living. Such an ecosophy would build a unitary view of the cosmos in which everything is interdependent and moved by creative energy, one that views the Earth and the universe with reverence and explores our essential relationships and responsibilities there in. It would be, essentially, the philosophy Indigenous people have lived for generations.—Greg Cajete, Tewa Pueblo

It has *always* been about reverence, the act of care for others and for our earth. *Aloha aina* then becomes again the more ancient *aina aloha* in Hawai'i—an interdependence gained when we explore our essential relationships and respond accordingly, thus the energy and life-force found in *meaning as it relates to our universe*. Mahalo Greg, *I love that*. It does not matter if you view land as Mother or sky as Father. These are simply extensions of another's world-view. What matters is that you have some kind of relationship with this place we live and breathe in, and if you only have an academic one, you must at least seek those who do not. *It is the quality of our relationships that will help us evolve.*

I believe the main purpose of these ideas is to get us to *think* together -- to open our minds and explore the purpose of our lives, our work, our particular way of viewing. Why are we this way? Why are you reading this article? There is a reason why you found this piece of my mind. Find out what it is and go into it with your passion for science, truth, culture and the needs of our time. *Be of service to that*. Respond with your life to the questions of your heart. Don't make it only about cognitive accumulation of information. We do not have the luxury of time. Discover what interdependence *really* means by listening to others, by watching how those who have more experience do things, and by sharing ideas when asked. Then go out and watch the moon rise and swim in waters freshly seasoned with Spring rains.

Finally, here is what beloved mentor/friend Willis Harman (1977) had to say on the subject:

I think the wisest thing is being humble and listening. We live in a very arrogant society. Listening has to do not only with listening to myself, but listening to nature and listening to very simple people. There are things that Native Americans

have said to me in just a few words that just summarize so much. I was talking with one Native American and he got a little tired of my questions and he said, "you know you white people, you have so much trouble understanding the way we Indians look at the world, it is very simple to understand how Native Americans view things, you only have to remember two things, one is, everything in the universe is alive, the other is, we are all relatives".... and that is wisdom. (Willis Harman, Institute of Noetic Sciences) http://twm.co.nz/Harm_bio.html

So here it is: *effulgent coherence*. This is why *three* ways of our knowing must now be detailed, debated and understood: physical, mental and spiritual *are* knowledge aspects of our holographic universe. They operate as beams of energy teaching us in separate ways about wholeness:

Everything is alive and we are all relatives.

Indigenous world-views will thus survive. Tides come in and they go out again. *Nouns have always been verbs*. It has been like this for a long time. The Big Three exist: *See* the science in it, *think* it through carefully, and then *inspire* the world with the quality of your participation. Please, most of all *ulu ka le'ale'a* – create *joy in the process*.

Amama ua noa.

Notes:

1. A hologram is a three-dimensional photograph made with the aid of a laser. To make a hologram, the object to be photographed is first bathed in the light of a laser beam. Then a second laser beam is bounced off the reflected light of the first and the resulting interference pattern (the area where the two laser beams commingle) is captured on film. When the film is developed, it looks like a meaningless swirl of light and dark lines. But as soon as the developed film is illuminated by another laser beam, a three-dimensional image of the original object appears. The three-dimensionality of such images is not the only remarkable characteristic of holograms. If a hologram of a rose is cut in half and then illuminated by a laser, each half will still be found to contain the entire image of the rose. Indeed, even if the halves are divided again, each snippet of film will always be found to contain a smaller but intact version of the original image. Unlike normal photographs, *every part of a hologram contains all the information possessed by the whole*. Source: Michael Talbot: *The Holographic Universe*.

2. Robert Nadeau and Menas Kafatos (1999). *The Non-Local Universe: The New Physics and Matters of*

the Mind. New York: Oxford University Press.

3. Mahalo to Dr. Shane Edwards of Te Wananga o Aotearoa of New Zealand for this idea of (*k*)*new*. It was found in his Ph.D. dissertation (2009): *Titiro Whakamuri Kia Marama Ai Te Wao Nei: Whakapapa Epistemologies and Maniapoto Maori Cultural Identities*. It summarizes both the feeling/fact of the idea of ancient/new.

4. Near Death Experience (NDE) summary/lesson from L. M. S of Pepeekeo, Hawai'i after drowning accident and immersion in coma at Hilo Hospital (2009).

5. Weltanschauung—World-view, product of culture, constructed in language.

6. Radical empiricism is a pragmatist doctrine put forth by William James. It asserts that experience includes both particulars and relations between those particulars, and that therefore both deserve a place in our explanations. In concrete terms: any philosophical worldview is flawed if it stops at the physical level and fails to explain how meaning, values and intentionality can arise from that (Wikipidea).

Correspondence to:

Manulani Aluli-Meyer, Ed.D.
Te Wānanga o Aotearoa
116 Asquith Ave, Auckland
New Zealand, 1025
Email: manulani@hawaii.edu

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