

Summary

The *empathy machine*/Interface [em/I] is a portable exhibit constructed in accordance with unusual features found at pilgrimage spots that contain *pictographs*, *petroglyphs* and *petroforms*, known universally as 'rock art'.

As a replica of 'natural architecture', the [em/I] demonstrates the power of place, proposed by the *neuropsychological model* of cognitive archaeology (and its chief proponents cognitive-archaeologists David Lewis-Williams, David Whitley and archaeologist Jean Clottes).

The science of 'rock art' proposes that the perplexing inscriptions are "closely associated with the trance experiences of shamans." And were likely but not always made "as a means of traveling to a supernatural world."

The [em/I] employs Michael Persinger's experimental technology, which stimulates altered states of awareness using patterns of subtle pulsed electromagnetic fields. Dr. Persinger is a highly-regarded neuroscientist and a pioneer in the field popularly described as *neurotheology*. Human subjects stimulated by his electronic devices routinely report visualizations composed of 'rock art' motifs.

The [em/I] functions as a proof-of-concept that 'rock art' marks specific spots along the earth infused with distinctive geophysical features that can bring about altered states of awareness. And that these natural locations must remain undisturbed and intact to stay useful.

The [em/I] does not explain away extraordinary human experience, but rather functions as a beacon to the rich content available along the edges of human perception.

As a working model demonstrating the *affective* features of 'natural architecture', the [em/I] has specific application for therapeutic places such as hospitals, contemplative spots set aside for sanctuary, and formal spaces for dialogue and negotiation.

Intention

The [em/I] asks that we pay closer attention to the quality of the mental environment, particularly in urban locations, which tend to overwhelm the natural world and the spirit of places.

The [em/I] is also a working model of 'natural architecture' that can be integrated into the construction of our homes and public buildings, notably health care facilities, and anxiety-riddled spots such as mental health institutions or places of incarceration.

Of course, there's a downside to the technology of trance. And the [em/I] functions as a cautionary tale.

The exhibit and its extensive documentation provokes questions about the nature of human perception, and the central nervous system's response to stimuli in the immediate environment – the report of sometimes odd and extraordinary behaviours – regardless of whether the percipient is intellectually aware of the source or not.

Detailed Description

Over the past three decades, I have returned again and again to the theme of perception and the ontology that arises from the engagement of the human senses.

Building from prior collaborations with neuroscientists, art historians and archaeologists, my intention is to construct a portable exhibition that emulates specific qualities of place typically found at 'rock art' locations – ancient *petroglyphs*, *pictographs* and *petroforms* – around the world.

Some of the finest 'rock art' is located in Canada, along waterways such as Writing-On-Stone on Alberta's Milk River, the magnificent Hickson Lake pictographs on the Churchill River system in northern Saskatchewan, Agawa's 'inscription rock' on the north shore of Lake Superior, as well as multiple pictograph spots on Lake Of The Woods, and along the Stein River valley in British Columbia where "they write their dreams upon the rock forever."

Archaeology now proposes the *neuropsychological model* and a technology of trance, to explain how the ochre and pecked-out art came to be inscribed upon the rock. There's also evidence that *entheogens* – plant hallucinogens – were employed by the artists who made these extraordinary images. I also have recorded measurements that unusual geophysical features infused within the context of the landscape itself can also give rise to altered states of awareness.

Using proprietary technology, my scientific colleagues and I have experimentally invoked trance states in subjects (inclusive of myself), which seemingly square with the ontology of the shaman. More important, subjects routinely report and visualize *entoptic* (Greek for 'within vision') imagery associated with motifs found at rock art locations. And it is unexpected 'art', presenting itself to the mind's eye unbidden. We believe the machine technology is a facsimile of what is already occurring in nature.

Rock art locations are increasingly under threat of development or neglect as a consequence of our present-day ignorance of what these magnificent spots are for – they're a communication system – 'stone age' technology. They tell the story of who and what and *when* we are. They are the 'teaching rocks'.

"The world can tell us everything we want to know," Quitsak Tarkiasuk, an Inuit elder says in *Voices From The Bay*. "The only problem for the world is that it doesn't have a voice. But, the world's indicators are there. They are always talking to us."

It's all about paying attention. Other realms of reality are available to human beings when our eyes and ears and feelings are not distracted by the consensus trance, the illusory modern world immersing us all. However, as more and more people are pushed into urban environments, the capacity to be sensitive to the subtle semiotics of place is muted. In fact, the very ability of the natural environment to speak to us is confounded by the crash and roar of urban living; it's possible that within a generation or two, this distortion will become a preferred environmental aesthetic.

And if an urban person can no longer form the capacity to empathize with the natural world, then the following maxim is instructive: An obligation not felt, is not an obligation.

I feel a sense of obligation to the contemplative places that remain unspoiled – the natural spots which give rise to altered states of awareness. They are a link with other sentience – other ways of knowing – a part of who we are, even though we are growing apart and distant from them.

The *empathy machine*/Interface [em/I] conjures an electronically-induced sanctuary – an immersive cloister – to amplify and draw attention to a multiplex of available data (inclusive of what the earth has to say for itself), and the sense of an isomorphic reality.

The [em/I] is constructed with proprietary technology that imitates the so-called spirit of place found at remote and difficult to reach ‘rock art’ locations. The technology reproduces the subtle and transient geophysical energies (similar to those I have recorded at several sites), which have been experimentally demonstrated in the laboratory.

By starting with ‘rock art’ metrics, I also intend to imitate qualities attributed to ‘sacred places’ found throughout the natural world – locations accorded a deep and abiding respect as ideal places for contemplation. One such location is Grotto Canyon, a pictograph site in the Bow Valley in western Canada.

The railway tycoon William Cornelius Van Horne once said of the Bow Valley and Banff, the jewel of the Canadian Rockies, “if we can’t export the scenery, we’ll import the tourists.” They’ve been coming for well over a century. And the pristine splendour of the place is slowly giving way to urban expectations of what ‘nature’ ought to be.

The [em/I] is a response to the recognition that a majority of people in the dominant culture are now living in urban environments; they don’t get out much into the natural world, and when they do there’s a tendency to impose urban sensibility upon the wilderness and the natural architecture that hints at primeval forces underfoot. As a consequence, the language of nature becomes transparent.

The [em/I] acts as a prosthetic device to amplify and draw attention to the multiplex of reality, by engaging the human central nervous system directly – as the principal means of reception & transmission – bypassing the intellect.

Theoretical Frame

Behavioural neuroscience proposes the [em/I] makes it possible to bypass the intellect and stimulate mammalian brains into a similar frame of reference, moment by moment by moment; this creates the conditions for empathy (understood as an objective *process*, not a specific measurement with a subjective value).

FACTOID: While human beings appear to be different from one another, there is only one human race. And inwardly, all of humanity perceives the world through a common lens – the central nervous system. Raw data recorded and refreshed approximately every twentieth of a second by the central nervous system is compiled, processed, and acted upon by the intellect. Interpretations of raw data by the intellect are in effect a distortion. Therefore, language and culture, arguably, is a distortion that is regarded as an aesthetic. Aesthetics can be misconstrued into *category errors* of judgment, creating the conditions for conflict.

The [em/I] is constructed with modified rTMS (*repetitive transcranial magnetic stimulation*) technology, and proprietary algorithms, to facilitate a feeling for the ineffable – the shadows of an emotional intelligence – the semiotic transmitted and received by the body, but rarely understood by the intellect.

The [em/I] is akin to spectacles for the mind's eye to bring clarity and a focus of the awareness of 'an awareness'. Call it empathy: the royal road to compassion.

The [em/I] also complements the epic and novel forms of narrative storytelling; this is an intriguing potential. By adding another semiotic within the landscape, there is the potential for understanding how human beings can be prompted to empathize with some places more than others, or be warded off with non-verbal language (for instance, there is utility in shying future humans away from nuclear waste dumps).

The [em/I], therefore, is a tool for critical thinkers to recognize manipulation in the hands of *hidden persuaders* – to untangle the webs of subtle messaging embedded in the mental environment.

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