

Preface to the Chinese Edition of *The Metaphysics of Virtual Reality* (2000)

The editors of Shanghai Scientific & Technological Education Publishing House have kindly asked me to write a brief preface for this Chinese translation of *The Metaphysics of Virtual Reality*, and I am very pleased to agree to their request. This translation has special meaning for me. While *The Metaphysics of Virtual Reality* now exists in many languages -- including Korean, Japanese, Hungarian, and Polish -- there is something very special about this Chinese edition. Not only has this book been translated by such skilled and well-known experts in VR research as Professor Jin Wu-Lun and his doctoral student Mr. Liu Gang, but this Chinese edition also creates a kind of circle that connects my virtual reality practices to the Chinese culture that gave me another practice which has long helped me and which continues to inspire me. That second practice is the mind / body exercises of Tai Chi (*Taijiquan*) and Chi Kung (*qigong*), both great gifts bestowed on humanity by traditional Chinese culture.

Circles end where they begin, and from my encounter with the Chinese arts arose many of my philosophical inspirations. My computer work runs parallel to my work with Tai Chi. For the past ten years, I have been teaching Tai Chi exercises in Redondo Beach, California, where I make my home. Years before, I had studied with several excellent and generous Tai Chi and Chi Kung teachers who had come from China to the United States. What I learned from these teachers contributed greatly to my study of virtual reality. These teachers taught me about the role of awareness and attention inside the human body, especially as the body moves to cultivate internal energy (*qi*). This special kind of Tai Chi mind / body awareness has helped me understand some profound implications of virtual reality.

Western thinking has until recently underestimated the role of the human body in our cognitive understanding of the world. The study of virtual reality has begun to correct this Western ignorance as we increasingly learn to visualize abstract data on the computer and use all the bodily senses at the interface. The computer interface allows us to understand the world by linking several senses to the computer. Sound, sight, tactile feedback, and even physical orientation become ways to access data. The mind does not simply mirror the world in an abstract, formal way, but there is also a fundamental participation of bodily awareness that belongs to human knowledge.

Abstract ideas help us transcend the limits of the body. But we now also map the body onto the abstract levels of awareness. In VR, we map the body onto the X, Y, and Z grid of Cartesian coordinates, and we project our attention into the 3-D coordinates when we represent ourselves as avatars in a virtual world. These data visualizations transform information systems into new types of communication systems. Complex data visualizations extend the powers of the mind / body so that the human can enter into more than three dimensions of the physical world. Virtual space on the computer can allow avatars to enter four and even more dimensions of cyberspace.

The close partnership of mind and body is a fundamental teaching of the Tai Chi / Chi Kung tradition. Instead of separate components or even conflicting opponents, the mind and body can enjoy fellowship in a balanced understanding of the world. The great Taoist traditions from China also present ways of healing that turn the attention "backwards" and inwards to refresh the mind / body by returning to primal nature (the Tao). Here is where I find another link between VR and Tai Chi. While VR often sends consciousness outwards for immersion in a virtual world), the Tai Chi / Chi Kung tradition performs a helpful counter-balance by sinking attention back down to the wellsprings of the natural organism.

The reader will find references to Tai Chi in *The Metaphysics of Virtual Reality*. But when I wrote that book, I did not emphasize the central importance of this parallel activity as much as I have in more recent writings. At the time, I did not believe that modern people were ready to hear about the connection between VR and these ancient exercises. In a more recent book, however, I correct my reticence somewhat by making more explicit references to Tai Chi. The 1998 book *Virtual Realism* concludes the chapter "Nature and Cyberspace" with statements like the following:

"Someday we may learn to use Tai Chi -- or something like it -- to blend projection VR and HMD VR, each with its appropriate range of applications, both leading to a more productive, healthful life." (*Virtual Realism*, p. 171)

And this imagined scenario:

"A virtual Tai Chi expert invites you into the CAVE as you release your focus from HMD applications. The Tai Chi expert is a computer-generated composite that models the movements and postures of actual Tai Chi masters. The computer-generated master not only teaches a series of movements, but also adjusts meridian circulation, tests body structure, balance, and earth-energy strength. You play pushing hands, and even spar with the expert. An hour in the VR decompression chamber is a complete workout, and now you link smoothly to the primary world after reclaiming the integrity of conscious life in a biological body. The procedure offsets the disintegrating aspects of reality lags and Alternate World Syndrome. The VR experience becomes health-enhancing rather than health-compromising." (*Virtual Realism*, p. 172)

These quotations state more explicitly what is already implied in *The Metaphysics of Virtual Reality*. Where I write about "the body" or bodily awareness or the inner body in the *Metaphysics*, I was already thinking about the underlying parallel of VR and Tai Chi. In the early 1990s, it was not widely accepted in America to speak of such non-Western, "alternative" understandings of bodily awareness. Things have changed, however, in recent years. Walk into any American bookstore today and you will find shelves of books treating Taoism and Tai Chi exercises. The time is ripe for connecting the powerful energies of the computer with the hidden energies of the inner body. The cultural atmosphere is ready for a new synthesis of ancient body practices and high-tech immersion.

The reader of *The Metaphysics of Virtual Reality* should also realize that when I describe VR as "a metaphysical laboratory," I mean it quite literally. This phrase accurately describes my recent experiments and artistic practice on the Internet. Since 1997, I have been conducting a series of VR experiments that are now available to computer users on the Internet. Directing a team of art students at the Art Center College of Design in Pasadena, California, I have been building 3-D virtual worlds on the Internet that use avatars (graphic self-representations) to achieve human telepresence. These avatar worlds are 3-D chat environments that have become a place for thinkers and media theorists to gather (in avatar) and exchange ideas about virtual reality. In the Spring of 2000, a series of eight meetings took place called "CyberForum@ArtCenter" and the reader is invited to view the archives of chat and pictures available at <http://www.mheim.com/about/cyberforum/> and the reader is cordially invited to

participate in future gatherings. A future series of Internet events is planned that will create a more international telepresence in avatar worlds.

To conclude, I wish to thank the excellent translators of this Chinese edition and the helpful editors at Shanghai Scientific & Technological Education Publishing House, and I wish to express my hope that we may develop further explorations of cyberspace that renew ancient wisdom and thereby make us a whole and happy humanity.

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