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Bridging Real and Virtual: A Spiritual Challenge

ABSTRACT

The question of how to bridge virtuality and reality intensified in 2016 with the release of several consumer products. The article begins by reviewing two anxieties about virtual reality raised at a 1999 conference. To address these anxieties, the paper draws on post-Jungian archetypal psychology (James Hillman, Thomas Moore) and the retrieval of Renaissance theology (Marsilio Ficino). Two experiences with Samsung Gear VR then illustrate how classic archetypal elements can contribute to active procedures for bridging the virtual and the real.

KEYWORDS

VR spirituality, constructivist metaphysics, virtual architecture, immersive media, perceptual elements, archetypal psychology, 3-D dwellings, Samsung Gear VR

BIOGRAPHY

Michael Heim is the author of several books on the ontology of virtual environments (amongst them the pioneering The Metaphysics of Virtual Reality, 1993 and Virtual Realism, 1998). He is lecturer at the Mount St. Mary's College, Los Angeles.

THE CURRENT SITUATION

In the 1990s, Virtual Reality (VR) was a fantasy experiment among a small group of imagineers. The VR headset was a rare clunky device used by artists and experimenters. In 2015, the headset appeared in several products on the consumer market, and by 2016, it had become widespread. Thousands of headsets now function in a wide variety of contexts. Gamers were the first to adopt 3-D headsets, but now real-estate agents in Los Angeles also wear them, to give property tours to non-local buyers.[1] Therapists employ VR in the treatment of

1 Gibson Real Estate, June 2016.

https://doi.org/10.25364/05.3:2017.1.8

posttraumatic stress disorder and to reduce flying phobias.[2] One Australian man used the gear to witness the birth of his child, with his wife 4,000 miles away.[3] Film repositories like Netflix offer virtual theaters where online attendees can observe one another's reactions. The industry upswing began in 2014 when Facebook purchased the pioneering VR firm Oculus (Irvine, California) for $2 billion.

At the time of writing, several companies are pushing VR initiatives that in many cases include cooperation between software developers and hardware manufacturers. A flurry of market activity includes:

- Oculus in Samsung Gear VR
- Google Daydream View for Android phones
- Sony PlayStation Project Morpheus VR headset
- HTC's Vive VR headset
- GoPro's 360-degree capture rig
- Vuzix's IWear 720 headset
- Samsung's VR camera, the Gear 360

This article draws on the author's experiences with the Oculus / Samsung Gear that combines 3-D software (Oculus) running on a Samsung smartphone (Galaxy Note 4 and 5) mounted inside the Samsung Gear VR headset, a relatively inexpensive and functional setup. Virtual-world experiences are documented from this setup with screen shots and video captures available on YouTube, to provide the reader with visual references for the argument. The experiences described fit into what might be called the third wave of VR, a third push to reinvent media through immersive simulation. This "Wave 3" revives the recurrent cultural forecast that VR will change everything. Prior to this wave came two others, one in the 1990s and another at the turn of the 21st century. These prior waves were about VR concepts[4] and VR aesthetics[5] respectively, or so it seems to this author, as the on-and-off phases of VR appear to repeat over decades.[6]

While major players like Facebook, Samsung, Google, and Microsoft are entering the field of VR, the related field of Augmented Reality (AR) is held out by Apple as the most promising future for media. Instead of occluding the actual surroundings, AR overlays sense perception with virtualized information. See-through lenses add visual information much like an iPhone camera that shows the amount of zoom or filters that go into a capture of the given environment. AR thus avoids the "hooded" effect of VR headsets that insulate and replace

2 Wiederhold/Rizzo 2005, 183–185.

3 Anon 2015.

4 For an early theoretical discussion of VR, see Heim 1993.

5 For a discussion of many of the aesthetic experiments, see Heim 1998.

6 For a more general discussion of the phases of reality / virtuality fluctuations throughout cultural history, see Heim 2013 and Heim 2017.

user perceptions of the surrounding world. In short, analysis and critique of AR will require an approach that is different from that used for VR. Apple's wagering on AR over VR requires an uncompromising clarity of design not unlike Apple's decision (as of 2016) to not mix touch screens (iPad) with personal computers (MacBook), while others, like Microsoft, offer a mixed operating system that blends a touch interface with the traditional keyboard and mouse (Surface Pro). Only time will tell whether the clean break between AR and VR will hold.

REVIVING QUESTIONS

The installation of VR in current culture raises familiar questions: Are the concerns debated in previous decades still valid in light of current experiences? Does VR enhance or detract from reality? What connects the virtual with the real, and vice versa? How subjectively private is the VR experience? Does anyone think VR can become a spiritual practice that heightens the sense of reality?

This attempt to answer such admittedly big questions begins with an overview of discussions that took place in 1999 and in which the author participated. The concerns raised in 1999 will be compared with immersive experiences using current VR gear. The immersive experiences will be sprinkled with the language of contemporary archetypal psychology, drawing on James Hillman, Thomas Moore, Ginette Paris, and Thom Cavalli.[7] Following in the footsteps of Carl Jung, archetypal psychology points to certain primal values championed by Renaissance scholars that can serve today as resources for envisioning VR as a tool for spiritual evolution. The argument contends that the architecture of virtual worlds invokes much of the architecture of the natural world as perceived by antiquity (and retrieved by Renaissance scholars like Marsilio Ficino). The primal elemental correspondences that bridge the real and the virtual allow virtual constructs to manifest aspects of the already given universe. With this strategy, primal elements serve as a bridge connecting real and virtual experiences. The bridge also suggests ways to create a focused and informed soulful practice that deepens sensory appreciation of the natural world. Through heightened awareness of the primal elements of experience, the cybernaut or VR traveler, like the Renaissance magus, aims for psychological balance by applying simple meditative techniques post headset immersion. Unlike other media, VR deals explicitly with becoming more fully present as an actively engaged participant. Deliberate ritualized activity after wearing the headset can deepen the sense of presence that occurs within and beyond the technology.

7 Iconic texts for this group include the anthology of James Hillman's work Moore 1997; also Moore 2015, Paris 1998, and Cavalli 2002.

ECSTASY? ESCAPE?

During the twentieth century, many theorists feared that film would destroy live theater, that television would eliminate radio, that DVD recorders would doom real-time television. Hindsight may show such concerns to have been off target, but critical concerns often mark important turning points in media history. After all, radio did eventually come to occupy a different niche in the media environment after the introduction of television; dramatic theater did learn to emphasize certain aspects of live performance once it began competing with film; and live television continues to supply sports and breaking news. Similarly, reviewing past arguments about VR helps adjust how we perceive VR today. The two arguments revisited here were concerns of a conference held at the University of Graz, Austria, in 1999.[8]

The first is found an essay by Elisabeth Kraus entitled "Virtuality and Spirituality in Science Fiction Literature".[9] In the essay, Kraus traces the VR themes running through science-fiction literature, a literary genre potent enough to have created important semantic links between technology and everyday language, inventing terms like "cyberspace".[10] The essay by Kraus provides an insightful overview of several novels by William Gibson and Philip K. Dick, and illuminates the relationship between sci-fi novels and films like the Wachowski brothers' THE MATRIX (1999). In these works Kraus sees a complex and ambivalent response to virtuality. The novels and films do not simply use cyberspace and virtual reality as props for characters and actions. The narratives go deeper by exploring the positive and negative potentials of computer-generated constructs such as VR, cyberspace, and AR. These works of fiction stimulate a multivalent criticism of technology looming over the cultural horizon of the 1990s. At that time, many critics, including this author, warned of a threat to reality with the introduction of VR. A Circe-like "technological Platonism", we feared, would entrap users in a fascination with a perfect world of mathematically streamlined objects, thus eclipsing the actual imperfect material world.[11] Such Platonism, Kraus shows, has an explicit and documentable history in the personal background of Dick. The lure of sheer transcendence also runs through the cyberpunk genre of William Gibson and Bruce Sterling.

Kraus's overview highlights VR's transcendence, but the transcendence is a specific kind. The essay's title conjoins virtuality with spirituality (*Religiosität*), where spirituality is understood in a very specific way. This spirituality is the "techno-spirituality" celebrated by San Francisco author Erik Davis. Davis's

8 The papers are printed in the conference volume Wessely/Larcher 2000.

9 Wessely/Larcher 2000, 65–78. Citations are from the English version provided on CD-ROM that accompanies the book.

10 Gibson 1984.

11 See, for example, chap. 7, "The Erotic Ontology of Cyberspace", in Heim 1993.

book *Techgnosis*[12] is cited by Kraus on her first pages, and her essay refers us to Davis's notion of techno-spirituality as a gnostic variation of spirituality. Davis coined the hybrid term "techgnosis" to identify technologies like VR that provide a transcendent experience or ineffable ecstasy, a sensation akin to "electronic LSD". Here Davis follows early twentieth-century scholars, such as Hans Jonas, who theorized that passive intoxication was a goal for ancient Christian Gnostics. Intoxication is a flight from feeling alienated in an unfriendly materialistic universe. Ecclesiastical literalists took this kind of Gnosticism as their polemical archenemy throughout early Christian history. Literalist ecclesiastics sometimes caricatured their Gnostic brethren as transcendental spiritualists who cultivated fantasies devoid of concrete practical morality. This supposedly Gnostic spirituality inclined toward an intellectualism more appropriate for angels than for humans. Davis recognizes that this view of Christian Gnosticism has been outmoded since the discovery of the Nag Hammadi texts, which became widely available at the turn of the twenty-first century, but he still ties this image of spirituality to VR enthusiasts while disclaiming historical accuracy regarding the ancient Gnostic movement. Davis writes, "The authenticity of spiritual ideas and religious experiences does not really concern me here; rather I am attempting to understand the often unconscious metaphysics of information culture by looking at it through the archetypal lens of religious and occult myth", and continues,

> Gnosticism is such a fragmentary and suggestive patchwork of texts, hearsay, myth, and rumor that you can call almost any contemporary phenomenon "gnostic" and get away with it ... I admit that by teasing out the gnostic threads from the webwork of technoculture, I am perhaps only making a further mess of things, and it seems best to remind the reader that we are dealing with psychological patterns and archetypal echoes, not some secret lore handed down through ages.[13]

In contrast to Davis's casual treatment, if we want to make a serious connection between virtuality and spirituality – as Kraus does in the title of her essay – we need to remove the notion of spirituality from a passive, inebriated, and uncritical experience. Instead we should conceive a spirituality that is active, alert, and sober. As the archetypal psychologist Thomas Moore points out, a spirituality embedded in today's complex secular world requires critical thinking and patient cultivation.[14] Such spirituality needs deliberate rituals to connect conscious life with the deeper psychological levels of soul-making. Passive reliance on technology, especially a hallucinatory technology, is unlikely to integrate and order the obligations and distractions of everyday life. While an imaginary Gnos-

12 Davis 2015.
13 Davis 2015, 80 and 93.
14 Moore 2015.

tic ecstasy may have seemed cogent for a fictional cyberspace of the 1990s, a contemporary spirituality of today's Internet and VR requires greater clarity and critical fortitude. The requirements of actually dwelling in virtuality are different from the requirements of merely imagining and occasionally building in virtuality. Fiction, especially science fiction, can foresee emerging trends, but its literature can hardly serve as a manual for living in the present. BLADERUNNER (Ridley Scott, US 1982) is a wonderful film, but its dank set should not be confused with the lovely Bradbury Building in downtown Los Angeles that served as the backdrop for the movie.

BODY AMNESIA? GROUNDING?

The second essay to revisit is by Elisabeth List and is entitled "Floating Identities, Terminal Bodies: The Virtualization of Existence in Cyberspace".[15] This essay proceeds from the twentieth-century epistemological framework of phenomenology (Franz Brentano, Alfred Schütz, Maurice Merleau-Ponty, Francisco Varela), so here the lens we see through is a direct experiential lens rather than a literary fictional one. We (the phenomenological subjects) are looking at the contents of our own experiences through the Cartesian *ego cogito*. The historical Cartesian ego originally lacked bodily awareness as René Descartes in the seventeenth century considered the "outer" world to be a grid map of mechanical forces that subsume the organic physical body. A number of twentieth-century phenomenologists developed an alternative view of the *cogito* ("I am now thinking") that includes somatic self-awareness ("I feel in my limbs") in their descriptive research.[16] List pays close attention to sensory feedback in describing cyberspace, and she notices a profound problem in so doing:

> By distinguishing between intentional states and intentional objects of various kinds Brentano takes what he calls "intentional inexistence" as the ontological state of such objects. "Intentional inexistence" now is just the term Brentano uses for what we today call "virtuality", namely "not really existing in an ordinary sense" but existing in the sense of being able to be thought of, as thinkable, as possible, in short, as virtually existing. This idea has far reaching consequences for our topic, because taken seriously it means that all objects we can conceive of are in fact of this kind, including our bodies and our selves. The thought experiments and science fiction scenarios are about converting all experiential space into informational space, in which sensual bodies are no longer of concern. The place held by an embodied subject would then

15 Wessely/Larcher 2000, 17–37. The German title of this essay is "Platon im Cyberspace: Technologien der Entkörperlichung und Visionen vom körperlosen Selbst in der telematischen Kultur" ("Plato in Cyberspace: Disembodying Technologies and Visions of the Bodiless Self in Information Culture").

16 See Merleau-Ponty 1945, Gendlin 1978, Hanna 2004, Levin 1991.

shrink to a zero point of pure awareness – this would indeed be a completely new form of existence.[17]

In other words, bodily sensations might also become data. If a sensation can be noticed, why not digitize it? Why not have it represented in the virtual world just as we represent musical tones in binary digits? As components of the ego's experience, why not add physical sensations to the map of virtual worlds? List raises the specter of a voided subjectivity with zero non-virtual content. With everything human uploaded to data storage, what role is left for human agency? With everything virtualized, what remains of subjectivity? Can there be a pure awareness distinct in theory from the virtual world? What is left then to upload to the computer?[18]

List worries about the folly of reducing everything to the virtual. Much of what situates the self – gender, race, the community of other people who help construct the personal identity – grows through embodiment, and no programmed information can exhaust that self-identity. She sees, nonetheless, a "terminal body" emerging in contemporary culture, the neglected body that builds an online identity, or several online identities, that feels more substantial and more supported than the embodied and situated self. The alienated body then becomes a terminal for logging on to the cyber-self or multiple online identities that thrive in a virtual community, a community that reinforces the chosen avatar or virtual identity more effectively than the physically surrounding community. In this way, "computer addiction" affirms the virtual self that is constructed and fortified by the online community (e-mails, forums, Facebook, MUDs, instant messaging, etc.).

Correctly, in my view, List finds an alternate model of physical self-perception in the Chinese paradigm of the "energy body". The holistic life force flowing through the human body can be awakened by conscious practice as is evidenced by the arts of Tai Chi Chuan, Yoga, and Qigong. These meditative arts use soft movements and dynamic breathing to stimulate a warm current that can be sensed directly by the focused mind. Gendlin's "focusing" techniques function similarly, by reaching unconscious blockages that then bubble up to the surface of consciousness. When the energy body or bioenergy is consciously felt, the terminal body is reincarnated and replanted in its cosmic situation of embodiment.

In her conclusion, "Wired: A Meditation on Being Online", List describes a phenomenon that many feel today: despite efforts to maintain a feeling of being grounded or rooted in the physical realm, a highly stimulating digital environment can keep the brain "switched on" with exciting answers and engaging

17 Wessely/Larcher 2000, 31.

18 See an argument for this view in Zhai 1998. The classic in this line of thought is Moravec 1988.

conversations even when awakening from sleep. The body feels "weightless, feeble, unable to resist". Here "the self feels de-centered, disseminated in the flux of intellectual or imaginary inputs, information, and media events". We feel in danger of losing our anchor in the real life situations of our bodies and the persons around us.

VIRTUAL ARCHITECTURE

The essays by Elisabeth Kraus and Elisabeth List raised two major concerns about VR: ecstatic drug-like escapes that can damage personal life, and body amnesia that over time weakens sensory grounding, respectively. Both Kraus and List (K&L) deal with large, qualitative hazards, but the K&L hazards are not inconsistent with the empirical safety warnings listed in the user guide provided by the manufacturers of Samsung Gear headsets:[19]

- A comfortable virtual reality experience requires an unimpaired sense of motion and balance. Do not use the headset when you are: Tired; need sleep; under the influence of alcohol or drugs; hung-over; have digestive problems; under emotional stress or anxiety; or when suffering from cold, flu, headaches, migraines, or earaches, as this can increase your susceptibility to adverse symptoms.
- Just as with the symptoms people can experience after they disembark a cruise ship, symptoms of virtual reality exposure can persist and become more apparent hours after use. These post-use symptoms can include excessive drowsiness and decreased ability to multi-task. These symptoms may put you at an increased risk of injury when engaging in normal activities in the real world.
- Take at least a 10 to 15 minute break every 30 minutes, even if you don't think you need it. Each person is different, so take more frequent and longer breaks if you feel discomfort. You should decide what works best for you.
- People who are prone to motion sickness in the real world also have a heightened risk of experiencing discomfort while using the Gear VR. Such individuals should take extra care to read and follow these warnings carefully.
- We recommend consulting with a doctor before using the Gear VR if you are pregnant, elderly, have psychiatric disorders, suffer from a heart condition, have pre-existing binocular vision abnormalities or suffer from a heart condition or other serious medical condition.

19 These warnings appear in the booklet entitled "Getting Started Guide" that accompanies the Gear VR and can also be found in a slightly different version at www.oculus.com/warnings.

- Do not use the Gear VR if you have symptoms of squint, amblyopia,[20] or anisometropia.[21] Using the Gear VR may aggravate these symptoms.
- Anyone who previously has had a seizure, loss of awareness, or other symptom linked to an epileptic condition should see a doctor before using the headset.
- This product should not be used by children under the age of 13, as the headset is not sized for children and improper sizing can lead to discomfort or health effects, and younger children are in a critical period in visual development.
- The Gear VR should not be used by children under the age of 13. Watching videos or playing games with the Gear VR may affect the visual development of children.
- When children, age 13 or older, use the Gear VR, adults should limit their usage time and ensure they take frequent breaks. Adults should monitor children closely after using the Gear VR if children feel discomfort.

These cautionary statements from Samsung and Oculus are not inconsistent with the K&L concerns about escapism and body amnesia, but the K&L concerns go beyond Western medicine. The K&L concerns are holistic and not measurable by clinical instruments. The K&L concerns go deeper than the balance of left eye with right eye (necessary for stereoscopy). They reach down into the balance-of-life issue. A holistic lifestyle balance is not objectively measurable, although an imbalance certainly can be felt. Additionally, balance of life will differ depending on the type of virtuality involved.

Each implementation of virtuality, whether real-estate tour or remote birth by telepresence, has its own ratio of real-to-virtual. Depending on the goal of the medium, VR can run from hyper-real photography to various shades of AR. AR can sprinkle industrial or anatomical information over a lens on the real world; telepresence surgeons can view a Skype-like capture of a patient during a remote operation. Each application shades the degree of virtuality. Yet, aside from telepresence and photographic realism, virtuality can share certain other built-in features of the real world. What does any virtual building share with the real world? Here is where understanding the world-hood of any world can generate practical methods for balancing real with virtual. Architectural handles available across real and virtual worlds might allow users to adjust to changes and modify the holistic experience of world shifting. Are such handles available?

20 From the National Eye Institute: Amblyopia is the medical term used when the vision in one of the eyes is reduced because the eye and the brain are not working together properly. The eye itself looks normal, but it is not being used normally because the brain is favoring the other eye. This condition is also sometimes called lazy eye.

21 From the American Association for Pediatric Ophthalmology: Anisometropia means that the two eyes have a different refractive power, so there is unequal focus between the two eyes. This is often due to one eye having a slightly different shape from the other, causing asymmetric astigmatism, asymmetric far-sightedness (hyperopia), or asymmetric near-sightedness (myopia).

This is the importance of the *architecture* of virtual worlds. Knowing the built qualities of both real and virtual dwellings supports a dual dwelling process. Building and dwelling are related. Noticing shared aspects of real and virtual constructs provides handles for adjusting balance. Deliberate awareness can balance dual dimensions.

The building of virtual worlds is based on pre-given structures of the primary or real world. Real world architecture is buttressed by thousands of years of conscious evolution, of study and experiment with materials for habitation and for public gatherings. By contrast, a relatively new question is: What does a virtual world look like?

This question came up frequently while I was teaching graduate students at the Art Center College of Design in Pasadena, California, between 1996 and 2002. My two seminars "Virtual Worlds Theory" and "Virtual Worlds Design" produced dozens of online 3-D worlds, many of them intended to push the boundaries. Students hosted live events in custom-designed virtual environments. These worlds are illustrated in other publications, and the logs are available online.[22] Some experiments followed the guidebook *A Virtual Realist Primer to Virtual World Design* by the Swedish scholar Mikael Jakobsson.[23] But one question often posed was: What limits, if any, does architecture have in virtuality? Or, rephrased: Can we produce worlds that ignore reality, or is there something that transcends virtuality, some anchor that pins the virtual to the primary world? (Notice that the "primary" world prejudges the issue by ranking the virtual as derivative.) The question arose in the first worlds built because the majority of art students wanted to collaborate on building a world without gravity. They imagined spaces where avatars zoom from place to place, a world where there was enough gravity to land on floating platforms, but not a world where transportation was a heavy liftfig (see fig. 1). No traffic jams in Los Angeles – imagine that if you can!

While the Art Center experiments were sometimes wild yet sometimes successful as experiments, they did not address the K&L concerns about virtuality. Art Center students were simply enthralled with the opportunity to create innovative virtual environments for gaming and social gatherings. They stood on the cusp of creativity, with some of the first classes in Web design and computer animation in the nation. Our worlds were not fully immersive 3-D through headsets but on-screen faux 3-D in a medium known as "ActiveWorlds". It was a time to unleash, not restrain, the creative impulse. There was no pause to ask, What bridges can we create for balancing virtual with real? What aspects of world building, of design architecture, can bridge virtual and real? There was

22 References and extensive logs are found at www.mheim.com.

23 E-book available online at http://www.mheim.com/wp-content/uploads/2014/05/Virtual-Realist-Primer.pdf

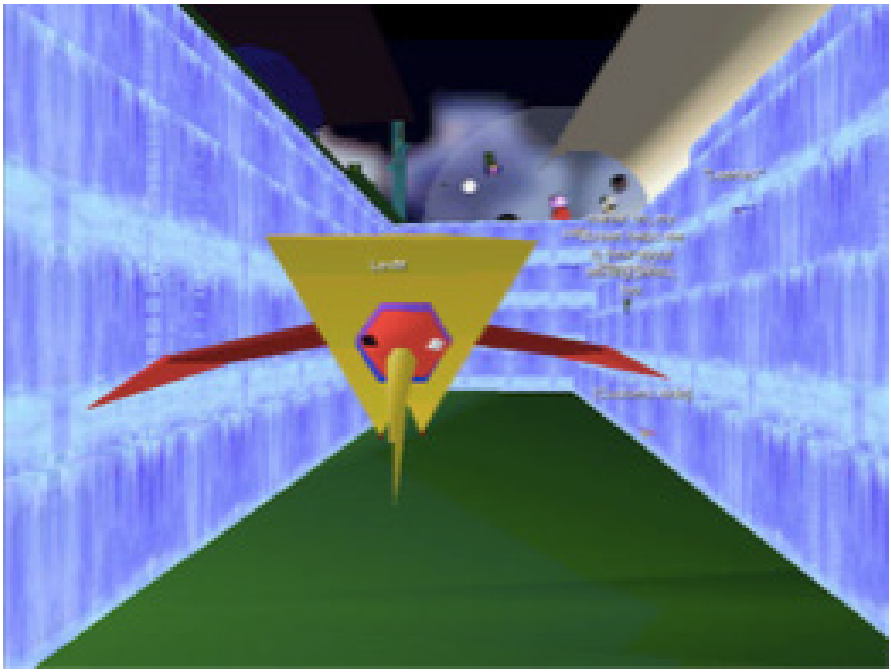

Fig. 1: Bird avatar landing on platform in low-gravity environment.

no pause to ask, What does the *given* world contribute? What features of the primary world appear also in the virtual? How is balance possible? What handles can be grasped inside the transition chamber that connect real and virtual? Any answer would have to take into account the fact that any definition of "real world" would be highly contentious among philosophical people. We might, for example, settle on something as abstract as geometrical figures like triangles, squares, and circles appearing in both real and virtual worlds. Computer graphics and animation, in fact, hang on the framework of geometry. But an abstract grid does not offer a range of qualitative elements to mix and balance.

Mixing and balancing is a requirement. As will be addressed later, the art of mixing and balancing goes back millennia and has flourished in underground traditions like alchemy. The ancient art of balance also resembles the Asian skill of feng shui, the adjustment of subtle energy flows in a living environment or ecology. What Western culture calls "workflow" is not simply ergonomics or healthy habits of posture alignment and frequent breaks. Moreover, workflow is to remove blocks when the work process stagnates. Effective workflow promotes efficiency and a more engaging experience. So, too, with mixing and balancing. The entry into and exit from different worlds need not be jolting or

escapist, need not induce bodily numbness or somatic amnesia. The handles for exit and entry are the primal ingredients codified centuries ago throughout the Mediterranean. These handles are the known four elements, the roots of reality, represented in almost all cultures, and they are easily overlooked because they are both subtle and primal: fire, water, air, and earth. These four elements are not identical with the literal material substances that we manipulate with our tools. They are rather archetypal qualities of experience. In fact, both Western and Asian traditions list a fifth element of spirit or attention that plays or hovers freely above the four elements. Spirit is sometimes called the fifth or "quintessential" element. Spirit transcends the four elements so it can move among them. The spirit is what balances the four elements.

So the architecture of worlds, both virtual and real worlds, can be felt as experience layered with four basic elements, four handles that the fifth element of spirit can grasp and harmonize for each world experience.

TOUR OF TWO EXAMPLES

The backstory of the four elements will make more sense after a brief tour of two pieces of virtual-worlds architecture.

The Oculus Lobby is the landing pad where virtual voyagers – cybernauts – first perceive virtuality (see fig. 2). It is the combo hub/library/store where the immersion begins. The aesthetic of this room is both indoors and outdoors: the wide world reflected in virtuality. The Lobby shows a three-dimensional environment resembling a modern-style apartment with areas for socializing, reading, and

Fig.2: View inside the Oculus Lobby Hub.

lounging, along with a triptych of well-lighted panels. The panels invite viewers to choose a virtual experience or game to enter next, with a glance and a tap on the headset. So each adventure with the headset goes through the Lobby first. The Lobby has a specifically modern architecture (think Rudolf Schindler's 1930s' beach houses in southern California) where the outdoors blends with the indoors. The interior has patios, windows, and skylights, merging outdoors with indoors. The Lobby panel is also the commercial hub where virtual experiences are advertised and sold. The advertisements show prices along with the comfort levels and hardware requirements (hand controller, disk space, etc.).

A two-minute video tour minus the three-dimensional immersion of the headset can be found at the private video link https://youtu.be/w_bpluxIOkk. Notice the blend of indoors and outdoors, the advertising panels, the areas for socializing, as well as the fireplace, trees outdoors, skylight, and the reflective water pools. Much as the television or computer in the living quarters pours the world into private space, so too the advertising panels bring awareness of other virtual experiences into the apartment-like Lobby.

As in modern architecture, the feel is spaciousness and fullness, the outer world blended with inner and private spaces. Everything is available with all-at-once accessibility. While from the outside someone wearing a headset seen may appear claustrophobically challenged and solipsistic, the insider view is all-inclusive comprehensiveness: the plate is full. Like a shopping mall, the Lobby encloses the shopper while seeming to offer everything in a wide-open space.

When we consider the four primary elements in the Lobby, the fireplace clamors for attention (see fig. 3). The artificial alcove or hearth honors the primal element fire that doubtlessly fascinated cave dwellers in the Stone Age.

Fig. 3 The elements visible in the Oculus Lobby Hub.

In front of the fire is the calming reflective pool, water being the cosmological element that balances fire. The more subtle meaning of the water element is reflective empathic fellow feeling, which then balances the fires of personal ambition and ego propulsion. The Lobby has a literal fireplace balancing cool, reflective pools of water.

The Lobby skylight is special (see fig. 4). Traditional architecture often celebrates public spaces, especially the entries of city halls, with a skylight. The ceiling window that funnels sky light into a gathering place is called the *oculus* (Latin for "eye"). The view upward through the Lobby eye shows cantilevered structures floating in clouds, contrasting with earthy branches and trees. So: earth, air, fire, water – all four elements populate the Oculus Lobby.

Fig. 4: Skylight view inside the Oculus Lobby.

Leaving the Lobby to enter a VR experience or game means plunging into a different mix of elements. The four elements are not to be taken as literally as we find them in the Lobby. Taken less literally, the elements are subtler, more soulful, more capable of becoming components of spiritual life. Taken less literally, the elements can be cultivated by attention balanced by spirit.

Land's End is an example that illustrates both literal and metaphorical elements. Something like a maze, the game moves the cybernaut through a series of locations on a simulated beach, through high mountains, and over a vast ocean. *Land's End* often presents the traveler with puzzles that must be solved before the next move through the series of locations can be made. The thrill of the game is the sense of place when near rushing waves, on the tops of mountains, inside a cave, or flying through the air. The four elements can feel quite

literal here. A five-minute video review (see the private video link https://youtu.be/N6nXkTTAUUs) provides a second-hand sense of how the game is played (see fig. 5).

Fig. 5: Inside level 1 of Land's End.

Here we are no longer indoors in the cave-like ambience of the Lobby. Here is no roof, no sense of enclosure, but rather exposure to a wide expanse. While the seascape lies ahead with waves crashing onshore below, earthy mountains invite climbing and odd artifacts beckon with their puzzles. Connecting the dots on petroglyphs opens new pathways and tests mental effort (intellectual activity relates to the archetypal sense of Air). The reddish tinge of clouds and sky inject intensity (red relates to the planet Mars, active aggression). The archetypal-metaphorical significance of the four elements becomes more important than their literal significance. A short lists includes:

- Fire: Creativity and inspiration. Relating to ambitions, goals, and dreams. Metaphorically, the beginning phase of all ventures of mind and spirit.
- Water: Emotional empathy. Addressing the quality of human relationships and connections to others. Metaphorically, friendship, love, and the entire continuum in between.
- Air: Intellect and active planning. Dynamic change, conflict, and power. Metaphors for the constructive and destructive tendencies within every human.
- Earth: Material possessions. Stability issues of home, money, and career. Related to generosity and greed.

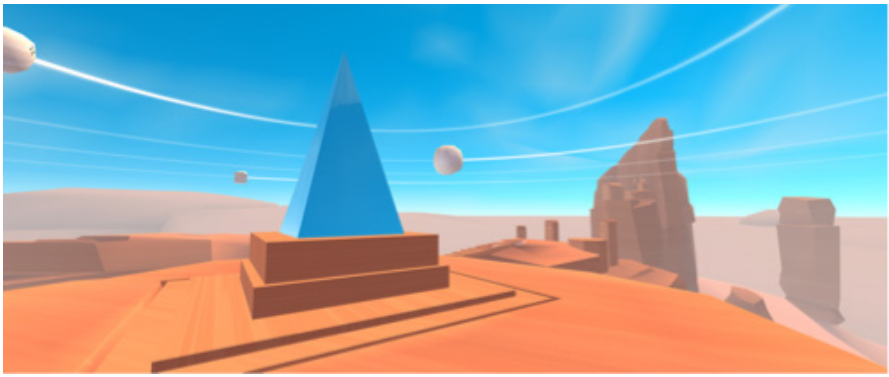

Fig. 6: Inside level 2 of Land's End.

Some of the puzzle areas in *Land's End* suggest a Platonic perfection, axiomatic geometry (see fig. 6). The primary elements then shift into archetypal-metaphorical mode. The still snapshot feels less like a place than an abstract construction, the product of computer graphics. Less literal simulation, the area projects an airy mental attitude rather than an earthy grounding. K&L's references to "technological Platonism" and the quest for escapist perfection come to mind.

Fig. 7: Inside level 3 of Land's End.

The traveler's gaze is usually controlled by the journey throughout *Land's End.* The structures provide highlighted targets and direct movements in specific ways (see fig. 7). The gaze remains directed by the game's goal, which is to move the viewer through a sequence of landscapes. Sometimes the landscapes are thrilling, but the land does not ground the traveler. This differs fundamentally from the Lobby. In *Land's End,* there is a comforting sense of direction within a potentially wide-open Nowhere and Everywhere. These factors then create a

certain tilt so that being-there is equivalent to being-directed and being–in-a-planned-environment. The dominant puzzle activity (Air) is balanced somewhat by the occasional thrill of a spectacular point of view or arriving at a targeted location (Earth). The Water element is merely literal, as the game in the current version offers no fellowship or interaction unless solving a puzzle gives a momentary frisson with its creator. The Fire element is subordinated to the pathway built into the game. Targets are provided at every step, not explored on one's own energy.

Assuming some of these observations are on mark, what can be taken away from these two samples of virtuality? How do the elements in each world become "handles" or ways of holding onto the experience and then later balancing the virtual world? If we create a personal transition or immersion chamber after leaving one of these worlds, what does the balancing process look like?

To answer these questions, it helps to look into the backstory of the four elements.

BACKSTORY OF THE FOUR ELEMENTS

> Neoplatonic theurgists were known as magicians
> and considered capable not just of extracting
> men's souls from their bodies but also of
> returning souls to their bodies, just like Empedocles.[24]

The four elements were not originally called elements. "Elements" (στοιχεία / stoikheía) was the term used copiously by Aristotle (384–322 BCE) when discussing his predecessors of a century earlier. Empedocles of Sicily (490–430 BCE) had been the first to philosophize about the four "roots" (*rhizōmata*) underlying phenomena.[25] Aristotle spoke scientifically while Empedocles expressed his philosophy poetically. Instead of claiming to be a scientist, Empedocles claimed the role of healer, wizard, and political soothsayer. Empedocles, Pythagoras, and Heraclitus were life coaches who portrayed themselves as interveners in the human condition and not as objective observers. Their descriptions of phenomena arrived before empirical objectivity split off from subjective, intuitive experience. In his poetry, Empedocles declared himself a wizard of awareness, concerned with meditative states of mind outside conventional thinking.[26] Identifying the four roots of things, Empedocles described divine presences: "Shining Zeus, life-bringing Hera, Aidoneus, and Nestis whose tear-drops are a

24 Kingsley 1997, 302.

25 Diels/Kranz 2004, frag. 6; Inwood 2001, frag. 12.

26 The non-conventional stance of Empedocles is elaborated by classicist Kingsley in Kingsley 2004, 315–559. See also Kingsley 1997.

well-spring to mortals." Air, earth, fire, and water appear as powerful divinities, not as chemical compounds. As William Guthrie wrote in his history of Greek philosophy:

> Empedocles combined his search for the ultimate nature of things with the demands of a deeply religious outlook, to which the nature and destiny of the human soul was of fundamental interest. He saw the answer to Parmenides in the substitution of four ultimate root-substances or elements (earth, water, air and fire) for the single principle of the Milesians.[27]

Empedocles's roots create web-like mixtures, blending what Aristotle would later describe as wet and dry, cold and hot qualities. Empedocles's interest in the four root qualities was for healing and balancing purposes. Undistracted by the ten thousand things of daily life, Empedocles's meditations cultivated an awareness of the basics that remain with a person throughout a lifetime.[28] Empedocles was an exponent of harmonizing elements that are animated by love and strife, attraction and repulsion. The two mixing principles that govern the four roots, love and strife, operate in cycles. With love ascendant, the roots form organic wholes or "spheres". In time, strife comes into play and pulls the harmony apart, so that the distinct separateness of things produces gaps in separate components.

Contrary to the nineteenth-century picture of a proto-scientist, his ancient biographers describe Empedocles a spiritual healer, exactly as he described himself. Empedocles describes people flocking to him, looking for healing. In the fifth century BCE, medicine was part of philosophy. And it was precisely through ancient medicine that Empedocles's legacy was preserved after philosophy split into the intellectualism of Plato and the scientific pursuits of Aristotle. The four humors of the human body and the four temperaments dominated medical practice throughout the medieval period. During this period, Arab alchemists preserved the ancient writings and their systems of mineral and astrological correspondences became part of the transmission of antiquity that the Medici family imported during the early Renaissance. The Medici's translator of ancient writings was wizard and sorcerer Marsilio Ficino (1433–1499), who founded the Florentine Academy. Ficino's humanistic writings were later eclipsed by scientific empiricism, but his ideas smoldered secretly through the centuries, occasionally drawing the attention of esoteric and hermetic researchers. Secret societies, Rosicrucians, and alchemists continued using the four roots, and in Britain in the late 1800s, the Hermetic Order of the Golden Dawn coded the elements into a unitary system of correspondences that culminated in the divination sys-

27 Guthrie 1962, 5.
28 Fragment 16 / 110, Inwood, 219.

tem of modern tarot. Carl Jung, the Swiss psychologist, drew on the four elements for his typology of the psyche, and new Jungians James Hillman (1926–2011) and especially Thomas Moore (1940–) built therapy on the rediscovered works of Ficino. Moore elaborated Ficino's magical astrology in his 1973 book *The Planets Within: The Astrological Psychology of Marsilio Ficino* before writing his best-selling books *Care of the Soul: A Guide for Cultivating Depth and Sacredness in Everyday Life* (1992) and *The Re-Enchantment of Everyday Life* (1997).

Moore's practical approach to therapy or "making a soul of one's own" sketches a rough blueprint for bridges between reality and virtuality.

BRIDGING REAL AND VIRTUAL

> By earth we see earth; by water, water;
> by air, shining air; but by fire, blazing fire;
> love by love and strife by baneful strife.
> *Empedocles, Frag. 109*

The active process of bridging real and virtual worlds can use the symbolic four elements to provide a psychologically soft landing for virtual travelers. The four elements can graft the virtual onto the real by using magical correspondences: "By earth we see earth; by water, we see water" and so on. The procedure is magical (associational) rather than rational, symbolic rather than literal, phenomenological rather than objective, and ritualistic rather than technological. Procedures of natural magic are commonplace but mysterious. Flowers and candlelight are typical tools of natural magic. Flowers in the hand are more than vegetation when offered with love, and under the right circumstances, candlelight is more romance than illumination. Magic applies symbolic procedures to achieve mood shifts in the self that daydreams, imagines, and invents goals for daily life. The deep self is also the self that worries over K&L's twin issues: escapism that damages personal life, and sensory deprivation that leads to body amnesia, insomnia, living mainly "in the head". These dangers are not felt on the level of tangible external threats or disclaimers or of precautionary warnings found in hardware manuals.

The deep self works from and is affected by visceral imagery. And since each virtual world has its own imaginal architecture, the bridging process will differ depending on the world. Different elements dominate each world and therefore require special compensatory approaches to create balance. To illustrate the general procedure and to show differences in specific operations, this article concludes with two distinct rituals. One procedure covers the Oculus Lobby, and the other *Land's End.* Both first-person phenomenological descriptions as-

sume that the virtual traveler has worn the headset for at least a few minutes, that the online experience has been relatively smooth, and that the helmet has been removed and the traveler is seated in quiet surroundings. Because of the main issues raised by K&L – escapism and uprooting – both procedures focus on grounding and therefore emphasize the earth element. Each phenomenological procedure moves through three phases: recall – visualize – connect.

SAMPLE PROCEDURES

Oculus Lobby Phenomenology: Sitting upright and alert, taking a few deep breaths, eyes closed, I turn my attention to my feet, flat on the floor. Feeling the ground, I allow afterimages to play across the screen of my eyelids as the virtual landing pad fades in my memory, softening to a daydream. The lobby appears as the pod of ingress and egress, where doors open to adventure and virtual journeys begin. I recall the colorful icons of several advertising panels. Which choices did I make and which choices are left for next time? Memory seeks out the details of the Oculus Lobby: stairs, skylight, water pools, fireplace, comfort pillow, bookshelf. What color were the pillows on the floor? Were there flames in the fireplace? What color are the trees on the veranda? Details that remain vague will need another trip to refresh. Eyes now open slowly on real world surroundings. I am home! The familiar room pours in like the dawn. Real surroundings register their presences: desk, windows, doorway, bookshelves. Attention fixes on something nearby, perhaps a photograph, a pen on the table, the case for the VR Gear, or the cat behind the drapes. With each breath, I connect with each piece of the real world that makes up Home and the comfortable memories of Home. This is a new homecoming. From this place, memories of the virtual become postcards of journeys far from Home. Breathing from my belly now, this point of familiarity – holding the pen, petting the cat, moving a favorite chair – is the axis from which virtual travel emanates. From virtual landing pad to Home ... The Lobby is not (yet?) a comfortable home.

LAND'S END PHENOMENOLOGY

Eyes closed, I review the afterimages of *Land's End.* Vast spaces seen from high cliffs overlooking the Ocean. Exhilarating flight of birds over the water, climbing into clouds. Spaciousness. Open horizons. Free flight from cliff to cliff, guided by the zip line of the game path. Each puzzle solved brings new motion, new flight. Arranging a giant monolith, I see the pieces fit together and again fly! Release to freedom! Turn to take in wide, startling vistas! Home again, retelling my last

adventure, discovering new facets of the landscape, the dead ends, the blockages, the puzzles solved.

Head movement and eye focus have been doing all the walking and problem solving, all the movement through space. Helmet off and settled now with feet on the ground, I decide whether to walk in fantasy (subjective daydream) or to walk slowly across the room and then step outdoors for a slow walk around the block comparing and contrasting the familiar environment that grounds my daily life and the virtual world of *Land's End*. As T. S. Eliot recorded, "We shall not cease from exploration, and the end of all our exploring will be to arrive where we started and know the place for the first time."

CONCLUSION

While some questions about VR from the 1990s may seem overblown when seen through the viewfinder of today's gear, some of the larger questions – such as those raised by the two essays discussed – still hang over the technology. In fact, these big questions concerning escapism and body amnesia seem headed for a showdown in the coming decades. The intense usage of technology is on the rise, and contemporary culture has already begun to wobble when it comes to dealing with these issues.

Looking at two entry-level VR experiences, this essay has drawn out threads from contemporary archetypal psychology – four-elements theory – in order to produce some samples of a spiritual healing process. The process uses aspects of virtual architecture to enact a conscious bridge connecting nodes of experience across virtual and real worlds. The background and rationale for this procedure were sketched historically and philosophically. While the conscious skills and self-control needed to enact procedures like these may seem rare in today's environment, the growth momentum of virtual technologies may press the next generation to develop if not these, then similar skills.

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