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The Represented World of the Stereograph

The promise of life-like depth succeeded in drawing 19th-century humans into the stereoscope[1]. Its representations of distant territories were praised for presenting "the plain, unvarnished truth...things exactly as they are."[2] Like a photograph, a stereograph is a preserved relic: "a trace, something directly stenciled off the real, like a footprint or a death mask."[3] The doubling of the relic seems contradictory at first; the two photographic variations argue inaudibly, like not-quite-identical twins placed side-by-side for comparison. When the stereoscope finally fuses the two images together, it provides a deep stage in which they can recover some of their previous solidity and spaciousness.[4]

Millions of stereographs stored away in archives undoubtedly offer large quantities of information from the past century and a half.[5] Gathering their information, however, requires one to ignore the "blind spot" of the entire operation: the fundamental circumstances of stereography which were established with the very first stereograph in 1838.[6] Even before diverse wonders were captured from around the planet, the stereoscope had opened up another, intrinsic, represented world with that distinct "atmosphere" which pervades all stereographs. Because it begins to demonstrate a comprehensive human-world relation, this represented world may be construed as the underlying "architecture" of stereography.

> Here, 'representation' does not imply that something merely stands in for something else as if it were a replacement or substitute that enjoyed a less authentic, more indirect kind of existence. On the contrary, what is represented is itself present in the only way available to it.[7]

As if peering through the proverbial keyhole into another room, the observer's attention is cast into the greatly enlarged, but vaguely

familiar territory inside the stereoscope. When the mode of perception shifts from representation to presence, from observer to inhabitant, a small world begins to emanate from this manmade work. Observer and vista become partially embraced, and peripheral details of history and optics fade away. As the two flat stereographic images find a point in common and tentatively lock together, they are superseded by a quiet, inflated "space" with a strange kind of depth.[8] Relief in the scene occurs without movement. Silence in the inner ear occurs without decrescendo.

Everything in this represented world is stratified into separate layers in relief (découpage), each with compressed thickness. The layers always face forward. If the observer were to consider moving laterally, they would threaten to pivot in unison, like flat leaves following the sun.

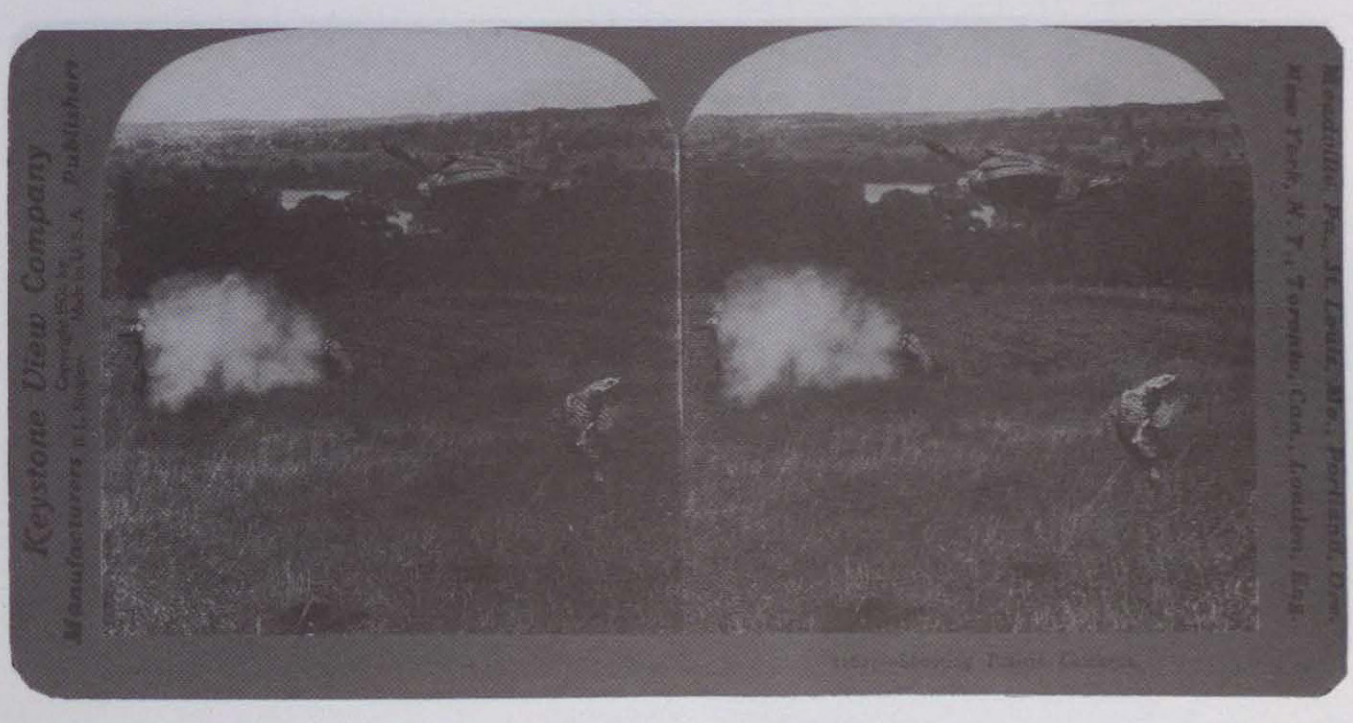
The sequential arrangement of layers launches an apprehensible rhythmic pattern, a *basso continuo* independent of the pictorial forms of the composition. As with music, this frontal rhythm resonates with the observer's body.[9] The separation of layers also leaves room for the body to imagine threading its way back and forth across the territory, gaining admission to the previously hidden portions at right angles to the original line of sight. Flat scenes, on the other hand, offer no relief and therefore no rhythm; they confront only the retina of the eye, leaving the rest of the body in paralysis.

With the extreme depth of field, foreground and background are pre-focused; all things, near and far, remain equally sharp. Lateral scanning across the stereograph and lateral fine-tuning for parallax (convergence) summon only the extraocular muscles around each eye. The ciliary muscle in the eye is not engaged because a stereograph does not require active focusing (accommodation).[10] The observer's lenses might as well be frozen.

Despite the best efforts of the eye muscles, fuzzy objects cannot be sharpened. Although they seem to be out-of-focus, perhaps it's not their image which is fuzzy, but their texture.

As with photography, a stereo camera will recognize and admit almost any subject matter into its depth of field. Once admitted, of course, not all are able to play equally well. A first-string stereograph must have a strong disposition, preferably with overlapping layers. Its front lines and its backfield should be equally sharp. Occasional flashes of brilliance are encouraging, and fine detail and texture promise subtle manoeuvres in parallax.

Early stereographs portrayed still life arrangements (*nature morte*), and subsequent stereo figures have remained rather still. However, unlike the involuntary slicing and freezing of temporal things in single photographs,[11] stereo objects seem voluntarily posed, like partially-live mannequins occupying the world's largest wax museum. In his novel



Locus Solus, Raymond Roussel described a similar two-step revival of cryogenically-preserved characters:

> The professor prepared on the one hand *vitalium* and on the other *resurrectine*. When injected...into the skull of some defunct person...the two new substances, each of them inactive without the other, (released) a powerful current of electricity at that moment, which penetrated the brain and overcame its cadaveric rigidity, endowing the subject with an impressive artificial life.[12]

Stereography presumes a desire to wander throughout its scenery.[13] When the muscles of the observer's body anticipate depth in a stereograph, the static relief layers acquire a degree of temporality.[14] Consequently, time is not quite frozen; it alternately runs and stops, although no measurable movement can be recorded. When not being directly observed, stereo objects may seem to move surreptitiously, usually a quick

nod or a gentle sway,[15] sometimes a mad dash. By the time the observer's eyes wander across to catch the action, all is still again. One's attention is clearly being monitored.

Because of the stereograph's extreme depth of field, adjacent figures occupy the same ranks in relief, apparently equidistant from the observer. However, when one figure partially overlaps another figure, they suddenly repel each other, tipped off by small discrepancies in parallax. These repulsions cause substantial bulges in the otherwise flat layers of relief. When confronted by humans, the representations won't lie still.[16]

Gazing horizontally at a stereograph of the Grand Canyon promotes that familiar sense of depth; looking *downward* at the same view also

induces vertigo.[17] As a mild, internal shot of adrenalin kicks in, the palms of the hands and the soles of the feet begin to sweat. The represented world reaches out to encompass the body, with its neck muscles, its balance mechanisms, and its fear of falling. Like a musician literally being moved by a piece of music,[18] the observer is subtly seduced by the stereograph.

Even physics is susceptible to change. In a photograph, running water has been frozen but it still appears to be wet. In a stereograph it becomes solid and dry, like glacier ice or clear plastic.[19] Smoke becomes wisps of fibre which will not dissipate. Flying objects hover without effort; they refute gravity and suggest that they're floating in a medium other than air. The stillness, the silence, the optical glimmer, and the bulges in relief indicate a thick, fluid medium with strong, humorous currents: perhaps a numbing aqueous solution or some kind of synthetic vitreous gel.

As one's eye muscles are engaged selectively when apprehending a stereograph, an imaginary arm inserted frontally into this medium might act in a similarly unusual way. Reaching in to grasp a stereo object, the arm might compress painlessly into unexpected sections, gradually coming to rest as additional floating layers in the stereoscopic relief. In this semi-carnal space, bones and muscles need not play their normal roles concerning compression and tension.

Stereography is an especially vivid mode of representation because it's so determined to deny the surface of the image and convince the observer that a vital world exists beyond. Like the invisible seam between background painting and foreground figures in a diorama, there's no clear distinction among observer, work, and stereo image. Representation and presence are fused together in a way which precipitates that familiar atmosphere of stereography and resonates with other modes of presentation. In a complementary way, stereographic qualities may even be evident in our own solid, spacious world.

1. Some observers with a "wandering eye" can integrate the two dissimilar images without using a stereoscope.
2. Published in *Art Journal* in 1858; quoted by Edward W. Earle, "The Stereograph in America," in *Points of View* (Rochester, N.Y.: Visual Studies Workshop Press, 1979), 13.
3. Susan Sontag, *On Photography* (New York: Dell, 1973), 154.
4. "Stereo" comes from the Greek *stereos*, meaning "solid."
5. See William C. Darrah, *The World of Stereographs* (Gettysburg, PA: W.C. Darrah, 1977).
6. The first stereograph was made in 1838 by Charles Wheatstone: a pair of hand-drawn images viewed through his stereoscopic device. In 1850 the idea was extended to include photography. (Sir David Brewster, *The Stereoscope: its History, Theory, and Construction* [London: John Murray, 1856], 18).
7. Hans-Georg Gadamer, *The Relevance of the Beautiful and Other Essays*, trans. Nicholas Walker (Cambridge: Cambridge University Press, 1986), 35.
8. Other modes of implicit corporeality and spatiality in pictorial art are described in H.A. Groenewegen-Frankfort, *Arrest and Movement* (London: Faber & Faber, 1951), 1-11.
9. Mikel Dufrenne, *The Phenomenology of Aesthetic Experience*, trans. Edward S. Casey et al. (Evanston, IL: Northwestern University Press, 1973), 271.
10. Hugh Davson, *Physiology of the Eye*, 4th ed. (New York: Academic Press, 1980), 395, 479.
11. Sontag, 15.
12. Raymond Roussel, *Locus Solus*, trans. R.C. Cunningham (London: John Calder, 1983), 118.
13. Roland Barthes, *Camera Lucida*, trans. Richard Howard (New York: Hill & Wang, 1981), 38-40.
14. Dufrenne, 263.
15. J. Moir Dalzell, *Practical Stereoscopic Photography* (London: Technical Press, 1953), 15.
16. "Bulging layers" in other pictorial works (for example some of G.B. Piranesi's *Carceri* etchings) are due not to parallax shifts, but to slight disruptions in our representational expectations of familiar objects, comprehensible illumination, consistent orthogonality, and uniform perspective.
17. Dalzell, 81.
18. Dufrenne, 339.
19. Dalzell, 91.

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