

## The Year of X-Ra(y)/ted Mysticism: A Media Archaeological Perspective

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The early modern concept of *communicatio*—i.e. “action from a distance” such as Locke’s association by *deus ex machina* and Newton’s general attraction—returned in the late 19th century, getting aroused not only by science but also technologies for example “spirit” photography and Roentgen’s discovery. Edison attempted to penetrate the skull and Jordan to capture thoughts on a “psychic retina,” both in vain. These are more than hoaxes since, without people’s fascination over extrasensory perception, Jordan e.g. could not have rhetorically validated his investigation merely by adopting radiological credibility; how do we explain this wishful expectation? Huhtamo et al.’s media archaeology undertakes “first, the study of the cyclically recurring elements and motives underlying and guiding the development of media culture; second, the ‘excavation’ of the ways in which these discursive traditions and formulations have been ‘imprinted’ on specific media machines and systems in different historical contexts, contributing to their identity in terms of socially and ideologically specific webs of signification.” Hence depicting medical or everyday media as ones for any unknown world (or mediums) remains consistent in many Japanese horror films—*Cure* (phonographic record), *Ring* (video tape), *Pulse* (internet), *Dark Water* (instant picture), *One Missed Call* (mobile phone).

## The Year of X-Ra(y)/ted Mysticism

I may be asked whether my theory would be favorable or otherwise to telepathy. I have no decided answer to give to this. [...] The psychological phenomena of intercommunication between two minds have been unfortunately little studied. [...] But the very extraordinary insight which some persons are able to gain of others from indications so slight that it is difficult to ascertain what they are is certainly rendered more comprehensible by the view here taken. —Charles Sanders Peirce, 1892<sup>1</sup>

How could he talk about intuitive telepathy along with communication? *Tele-* in Greek signifies “distant” and *-pathy* does “passing” whereas *communicatio* in Latin was the one-word expression for “action from a distance” so they look cognate. This filiation is not aberrant but has appeared elsewhere in the history of communication (e.g. Peirce) to return lately with Asian horror films. Worth mentioning in English are Sir Isaac Newton and John Locke, two 17th-century geniuses. Why the falling apple? Newton would reply: by gravity through a void. Why gravity then? Due to general attraction.<sup>2</sup> Why general attraction? Towards communication which binds matters together. Why communication? As the *deus ex machina* or divine power. Newton was hesitant about giving any decided answer to such a theological inquiry—thus *hypotheses non fingo*; later, Newtonians admitted that it was possible to convey without physical mediation something amongst bodies.

Attraction meant to Newton what “association” did to Locke<sup>3</sup> whose famous *Essay Concerning Human Understanding* has more than 30 paragraphs on communication: only those in Book III deal with signification while he discussed communications either of *motion upon impulse* or from God elsewhere, in the same vein as St. Thomas Aquinas illuminating how angels’ voice is transmitted — although interior — to others of a lower hierarchy instantaneously without loss.<sup>4</sup>

Peirce was hardly alone in his curiosity about telepathy, if not animal magnetism: “I know very well that my dog’s musical feelings are quite similar to mine though they agitate him more than they do me. He has the same emotions of affection as I, though they are far more moving in his case. You would never persuade me that my horse and I do not sympathize.”<sup>5</sup> Peirce’s metaphysical friends including American contemporaries were ambushing emergent technologies like *spirit* photography and the discovery of x-rays or Roentgen revolution: Thomas Alba Edison tried visually to pierce the skull and David Starr Jordan to capture thoughts on a “psychic retina,” both in vain.

Let me highlight these stories as they may be more than scandals, according to Erkki Huhtamo’s *media archaeology*: which is different from collecting underground materials<sup>6</sup> but asking why similar hopes and fears (e.g. democracy, moral panics respectively) arise each time a new medium gets introduced as though people undergo amnesia, whether the history of users’ mind—if not of technologies *per se*—is continuous. Without the wide-spread fascination over extrasensory perception, Jordan above could not have validated his pseudo-scientific investigation simply by adopting x-rays’ hardware credibility: many post-1896

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1 *Collected Papers* (Cambridge: Harvard University Press, 1931-35 & 1958), Volume VI, paragraphs 159-61 (citation is to *CP* Volume. paragraph).

2 Which is a mathematical law; see Alexandre Koyré, *Newtonian Studies* (London: Chapman & Hall, 1965).

3 See for their science-philosophy alliance: Yun-Csang Ghimn, “Visual and Linguistic Communication in the History of Medicine-From Semiotics in Medicine to Semiotics of Pain,” *Visio* 8 (2003): 276-78.

4 Thomas Aquinas, *Summa Theologiae* (London: Blackfriars, 1968-70), 1a. 76 & 84-85.

5 *CP* I. 314.

6 And it does not entail research at some dusty archives: for this Edison incident, I relied upon the *New York Times* online database.

developments were subject to such tactics of rhetorical integration as into socially recognizing less orthodox findings.<sup>7</sup>

## No-Brainer

Mr. Edison was asked if it were true that he intended to photograph a skeleton head by means of the Röntgen rays. He smiled, as he replied: “Yes; we are making some special long tubes which will give a five-inch distance between the poles in vacuum. Some day next week one of our boys will lay his head down on the table, and we shall suspend a battery of five of these large tubes over his head, so as to get a profile and side-face view. That will be merely to try our set of large tubes in combination.” –*New York Times*, February 9, 1896.

This newspaper had followed Thomas Alba Edison since one day before the interview when he strove to picture a human *cerebrum*, which the above interviewer considered “very absurd.” Still, our Jersey inventor was quoted February 20 saying that “by the last of the week” he should be able to photograph *bones* in a man’s cranium. *New York Times* was incorrect to call this successful as, on the 13th, Edison gave up revealing our most innate functions anyway. In believing all stuff allowed Roentgen rays (*NYT*, Feb. 14), the founder of General Electric Company was yet to narrow down their commercial, let alone diagnostic, uses but enthusiastically focused enough radiation to make a technically clearer image.<sup>8</sup>

Ignoring the difference between soft and hard tissue, Edison discovered some “practical” benefit of inspecting the bony structures through hands on March 17, which others had done already; during February 1896, the *New York Times* had covered such breakthroughs as the detection of a fractured arm (February 10 at Dartmouth College and 18 in Brooklyn), instantaneous x-ray photos (Feb. 12), the location of a needle hidden in a foot (the 14th, both in Toronto) and of a shotshell<sup>9</sup> between the fingers (13th, in Chicago), three *Medical News* articles on surgical applications reprinted (15th, followed by one upon Edison knowing admittedly nothing about photography). He fell behind this rush of discoveries due to his neurological obsession; Edison might have needed instead nuclear magnetic resonance imaging.

## Never-Minder

Prof. Rogers in a matter-of-fact way looked for a few minutes at a postage stamp, then retired to a dark room, and gazed through the lens of the camera at the sensitive plate. The figure of the postage stamp was on his mind, and from his mind it passed out through the sensitive ether to the place made ready to receive it. The result was a photograph of the stamp—small and a little blurred, but showing the undoubted features of the gracious Queen and the words “one penny.” Thus was the bridge between psychic power and photographic sensitiveness made once for all. This connection established, there is naturally no limit to the application of the principle.

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7 Harry M. Collins and Trevor J. Pinch, “The Construction of the Paranormal: Nothing Unscientific is Happening,” in *On the Margins of Science: The Social Construction of Rejected Knowledge*, ed. Ray Wallis (Keele: University of Keele, 1979).

8 “If two bulbs give a sharper outline than one,” Edison announced to *New York Times* on February 13, 1896, “then four bulbs ought to give an image still sharper, and there is no limit to the power we may get or the distance we may make the Roentgen rays traverse.” Without this question readily solved, he stopped experimenting on skulls in vivo.

9 Reports on *New York Times* that a Professor Fox in Montreal succeeded as early as February 7, Prof. Bergmann of Germany and Prof. Trowbridge respectively on the 17th are not confirmed elsewhere.

It thus becomes plain that the invisible rays of Röntgen are not light in the common sense, but akin rather to the brain emanations, or odic forces, which pass from mind to mind without the intervention of forms of gross matter as a medium, and to which gross matter in all its forms is subject.

Nor is this principle new in the philosophy of man. The wise of all ages have held that mind is sovereign over matter. [...] By psychic intensity the cohesion of molecules of gross matter may be overcome. It is well known to physicists that these molecules nowhere actually touch each other, nor do they come near doing so. The spaces between them are filled up by ether. Into the interstices of the ether it is easy for the odic force to introduce itself. It is, in fact, unlikely that the gross particles of stone exist at all; for, as some physicists have shown, these are but eddies or vortex-rings in the ether itself, which is the only material reality.

Mr. Marvin showed very clearly that this supposed legend was not lightly to be set aside as mythology; or, rather, that it is likely that mythology is the only true history. The same psychic strength and wisdom which have caused Odin to be remembered and revered as a god by our ancestors, was the same psychic force by which he overcame the cohesion of matter. –David Starr Jordan, “The Sympsychnograph,” 1896

Within months, the list of Röntgen-inspired hoaxes<sup>10</sup> added yet another eminent member. A notorious claim for x-rayed occultism came when Jordan, then Stanford University’s president, released “The Sympsychnograph: A Study in Impressionist Physics” in September that year of illusionism.<sup>11</sup> According to his description, Asa Marvin at the Astral Camera Club<sup>12</sup> in Alcalde devised some apparatus with a compound lens that was electrically wired into the eye of each observer with no detail therein as to how. The subject’s idea got fixed upon a cat, and the image came out (Figure 1). This report, where I cannot tell what Jordan’s own participation in the alleged finding was, sounds fraudulent at the point that he promises to capture felines’ ultimate<sup>13</sup> impressions of man. The picture turned out to be a faint composite of several photos.<sup>14</sup>

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10 For example, Nancy Knight, “‘The New Light’: X Rays and Medical Futurism,” in *Imagining Tomorrow: History, Technology, and the American Future*, ed. Joseph J. Corn (Cambridge: The MIT Press, 1986).

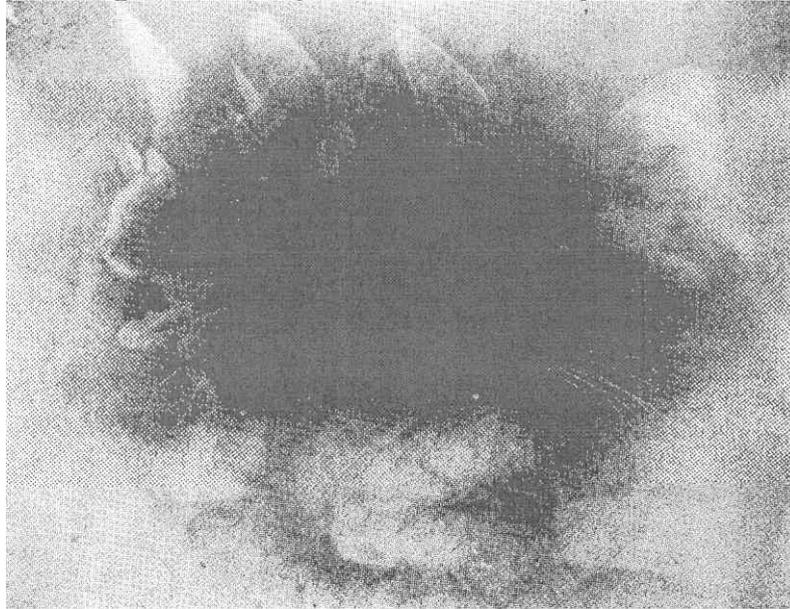
11 “The Sympsychnograph: A Study in Impressionist Physics,” *Appleton’s Popular Science Monthly* 49 (1896): 597-602.

12 Presumably inspired by William T. Stead’s review in 1891, *Real Ghost Stories* (<http://www.gutenberg.org/files/20420/20420-h/20420-h.htm>).

13 Rogers’ *ideography* was about securing an individual object while *sympsychnography* chased after some essential type in collective minds.

14 *The Electrical World*, October 3, 1896, 403.

**Figure 1.** “This picture is unmistakably one of a cat”



**Source:** David Starr Jordan, “The Sympsychograph: A Study in Impressionist Physics,”  
*Appleton’s Popular Science Monthly* 49 (1896): 601.

### ***Spiritist Photography and Thoughtography***

This ghost-like reality is *unredeemed*. It consists of elements in space whose configuration is so far from necessary that one could just as well imagine a different organization of these elements. Those things once clung to us like our skin, and this is how our property still clings to us today. Nothing of these contains us, and the photograph gathers fragments around a nothing. When the grandmother stood in front of the lens, she was present for one second in the spatial continuum that presented itself to the lens. But it was this aspect and not the grandmother that was eternalized. A shudder runs through the view of old photographs. For they make visible not the knowledge of the original but the special configuration of a moment; what appears in the photograph is not the person but the sum of what can be subtracted from him or her. —Siegfried Kracauer, *Das Ornament der Masse*, 1927<sup>15</sup>

So did he mean that, by taking somebody to light (*photo*), we shall bring the darkness of mortality to her? Certain spirit pictures are taken for harmless fun or to demonstrate how they might fool the audience. In a three-dimensional photo (Figure 2) the guy sitting on a chair seems to have witnessed the indistinct apparition that we can too, naked-eye: hence nothing is added up by Sir David Brewster’s technique. He let a woman draped in white attire rush before the wooden table and pose like a phantom — counting *one Mississippi, two Mississippi* — only to vanish shortly while the actor never moved — *one hundred Mississippi, one hundred and one Mississippi* — looking scared during a long exposure as required in the mid-19th century.<sup>16</sup>

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15 *The Mass Ornament: Weimar Essays* (Cambridge: Harvard University Press, 1995), 56-57.

16 Frank R. Fraprie and Walter E. Woodbury, *Photographic Amusements: Including Tricks and Unusual or Novel Effects Obtainable with the Camera* (New York: Arno Press, 1973), 5-10.

**Figure 2.** “Ghost in the stereoscope” by the London Stereoscopic Company



**Source:** Wm. B. Becker Collection/American Museum of Photography.<sup>17</sup>

Others however debated spectres' genuineness seriously. William Henry Mumler was prosecuted for duping the innocent<sup>18</sup> but soon exonerated because of insufficient evidence against him: doubters could identify no trickery in his studio re-enactment. There was another inflation of such controversies right before Wilhelm Conrad Röntgen's news hit British people: Sir William F. Barrett in 1895 submitted pictures of Lord Combermere hanging around; he accidentally had died and was being coincidentally buried, to his Society for Psychical Research colleagues.<sup>19</sup> James Coates assembled 20th-century illustrations of spooky imagery, e.g. Edward Wyllie's portrait of a fellow Robert Whiteford along with another face that, unlike Brewster's actress, nobody on-site was said unable to notice.<sup>20</sup> I should therefore locate David Starr Jordan's *sympsychography* between these episodes — chronologically.

*Ideography* or an inscription<sup>21</sup> produced upon the sensitive plate by externalizing ample mental energy of memories without any physical connection<sup>22</sup> was re-launched decades

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17 See also D. Brewster, *The Stereoscope: Its History, Theory, and Construction* (Hastings-on-Hudson: Morgan & Morgan, 1971), 205-6.

18 *Harper's Weekly*, May 8, 1869.

19 Jennifer Tucker, "Photography as Witness, Detective, and Impostor: Visual Representation in Victorian Science," in *Victorian Science in Context*, ed. Bernard Lightman (Chicago: The University of Chicago Press, 1997), 395-402; W. F. Barrett, *On the Threshold of the Unseen: An Examination of the Phenomena of Spiritualism and of the Evidence for Survival after Death* (London: Kegan Paul, Trench, Trubner & Co., 1917), 88-92.

20 J. Coates, *Photographing the Invisible: Practical Studies in Spirit Photography, Spirit Portraiture, and Other Rare but Allied Phenomena* (New York: Arno Press, 1973), 244.

21 "A general term that refers to all the types of transformations through which an entity becomes materialized into a sign, an archive, a document, a piece of paper, a trace. Usually but not always inscriptions are two-dimensional, superimposable, and combinable. They are always mobile, that is, they allow new translations

later.<sup>23</sup> In direct reference to x-rays, Sir William Crookes fostered a major stir in the early half of 1870s by openly championing such leading mediums as Daniel Dunglas Home but other cranks too. After decades, back into reputable chemistry — e.g. invention of the high-vacuum cathode tube where radiation's mechanical pressure is detectable — his appeal went again:

Röntgen has familiarised us with an order of vibrations of extreme minuteness compared with the smallest waves with which we have hitherto been acquainted, and of dimensions comparable with the distances between the centres of the atoms of which the material universe is built up; and there is no reason to suppose that we have here reached the limit of frequency. It is known that the action of thought is accompanied by certain molecular movements in the brain, and here we have physical vibrations capable from their extreme minuteness of acting direct on individual molecules, while their rapidity approaches that of the internal and external movements of the atoms themselves.

Confirmation of telepathic phenomena is afforded by many converging experiments, and by many spontaneous occurrences only thus intelligible. The most varied proof, perhaps, is drawn from analysis of the sub-conscious workings of the mind, when these, whether by accident or design, are brought into conscious survey. [...] To mention a few names out of many, the observations of Richet, Pierre Janet and Binet (in France), or Breuer and Freud (in Austria), of William James (in America) have strikingly illustrated the extent to which patient experimentation can probe sub-liminal processes, and thus can learn the lessons of alternating personalities and abnormal states.<sup>24</sup>

French effluvisists such as Hippolyte Baraduc, Albert de Rochas and Louis Darget appropriated the “radiograph” vocabulary for their endeavours to picture whatever comes from the vital body while roentgenology depended on some artificial source of radiation. Yet the public did not care, hoping that x-rays would provide a link to any unknown realm.<sup>25</sup> How do we theoretically explain this wishful credulity which remained consistent across different technologies?

### **Media Archaeology**

Do not seek the old in the new, but find something new in the old. If we are lucky and find it, we shall have to say goodbye to much that is familiar in a variety of respects. — Siegfried Zielinski<sup>26</sup>

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and articulations while keeping some types of relations intact. Hence they are also called ‘immutable mobiles,’ a term that focuses on the movement of displacement and the contradictory requirements of the task.” Bruno Latour, *Pandora's Hope: Essays on the Reality of Science Studies* (Cambridge: Harvard University Press, 1999), 306-7.

- 22 Which he attributed to I. Rogers; see D. S. Jordan, “The Sympsycho-graph: A Study in Impressionist Physics,” *Appleton's Popular Science Monthly* 49 (1896): 597-602.
- 23 Jule Eisenbud, *The World of Ted Serios: “Thoughtographic” Studies of an Extraordinary Mind* (New York: William Morrow & Company, 1967); Cyril Permutt, *Beyond the Spectrum: A Survey of Supernatural Photography* (Cambridge: Patrick Stephens, 1983), 88-113.
- 24 Crookes, *Researches in the Phenomena of Spiritualism* (Manchester: Two Worlds Publishing Company, 1926), 131-32; Sir Arthur Conan Doyle, a bereaved father, contributed thereto in *The History of Spiritualism* (New York: Arno Press, 1975). See also Janet Oppenheim, *The Other World: Spiritualism and Psychical Research in England, 1850-1914* (Cambridge: Cambridge University Press, 1985), 349-50.
- 25 Clément Chéroux, “Photographs of Fluids: An Alphabet of Invisible Rays,” in *The Perfect Medium: Photography and the Occult* (New Haven: Yale University Press, 2005).
- 26 *Deep Time of the Media: Toward an Archaeology of Hearing and Seeing by Technical Means* (Cambridge: The MIT Press, 2006), 3.

Friedrich A. Kittler's problematic reliance upon Michel Foucault<sup>27</sup> helped give birth to "Medienarchäologie" à la Foucault's *Archaeology of Knowledge*; unless in German, neither Zielinski nor Kittler has been rendered easy to verbatim understand. When translating Zielinski's *Archäologie der Medien: Zur Tiefenzeit des technischen Hören und Sehen* quoted above, Gloria Custance replaces "archaeology" with "deep time" (*Tiefenzeit*) from the subtitle.<sup>28</sup> This is unfortunate as readers would easily be lead into other media-archaeological stuff: e.g. "Media Archaeology" the ctheory.net<sup>29</sup> essay by Zielinski that has appeared on-line for a decade. Custance also rephrased *Audiovisionen: Kino und Fernsehen als Zwischenspiele in der Geschichte* into *Audiovisions: Cinema and Television as Entr'actes in History* several years ago; "interludes" or "intermissions," even "intermezzi" the Italian plural may look more comprehensible to Anglophones than "entr'actes" which denotes "Zwischenspiele" literally. Could she not have ended with "Audiovisions" nor indicated between (*entre, zwischen*) what our author located both cinema and television historically? I suspect they are hardly between two sections of an operatic play. Also, why "Hören und Sehen" differs from "Audiovision" is beyond me.

This prefigures Erkki Huhtamo's proposal to undertake "first, the study of the cyclically recurring elements and motives underlying and guiding the development of media culture; second, the 'excavation' of the ways in which these discursive traditions and formulations have been 'imprinted' on specific media machines and systems in different historical contexts, contributing to their identity in terms of socially and ideologically specific webs of signification."<sup>30</sup> This clarity makes Huhtamo's work a kinder entry point: Zielinski dispenses with recent examples while Huhtamo with real instruments but *discursive* ones rather. His examples of domestic entertainment (stereoscopy, fantasmagorie,<sup>31</sup> telectroscopy) are comparable with Paul Valéry's futuristic world originally dated 1928 which soon turned out actual in radio-like things:

Just as water, gas, and electricity are brought into our houses from far off to satisfy our needs in response to a minimal effort, so we shall be supplied with visual or auditory

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27 For which David E. Wellbery's foreword to *Discourse Networks 1800/1900* is more quotable than Kittler's main composition; *Aufschreibesysteme* fell into *Discourse Networks* yet emphatically by "auf-schreiben" instead of "schreiben" he was à la Bruno Latour approaching the notion of writing-down upon some two-dimensional matter, and "Systeme" rather than "Netzwerk" hints Niklas Luhmann's influence on German media studies, whose founding father was Gottfried W. F. von Leibniz on the communication of substances. Let me quote the afterword translated by Michael Metteer with Kittler's original expressions bracketed: "The term *discourse network* [Aufschreibesystem], as God revealed it to the paranoid cognition of Senate President Schreber, can also designate the network [Netzwerk] of technologies and institutions that allow a given culture to select, store, and process relevant data. Technologies like that of book printing and the institutions coupled to it, such as literature and the university, thus constituted a historically very powerful formation, which in the Europe of the age of Goethe became the condition of possibility for literary criticism. In order to describe such systems [Systeme] as systems [Systeme], that is, to describe them from the outside and not merely from a position of interpretive immanence, Foucault developed discourse analysis [Diskursanalyse] as a reconstruction of the rules by which the actual discourses [Diskurse] of an epoch would have to have been organized in order not to be excluded as was, for example, insanity." Kittler, *Discourse Networks 1800/1900* (Stanford: Stanford University Press, 1990), 369.

28 It must go less deep than James Hutton, a palaeontologist, believed our Planet Earth to be: *Time's Arrow, Time's Cycle* i.e. a volume by Stephen Jay Gould regarding Hutton got renamed *Die Entdeckung der "Tiefenzeit"* in German though.

29 Another related Canada-led input to archaeology is Charles R. Acland, ed., *Residual Media* (Minneapolis: University of Minnesota Press, 2007).

30 E. Huhtamo, "From Kaleidoscomaniac to Cybernerd: Notes toward an Archeology of Media," in *Electronic Culture: Technology and Visual Representation*, ed. Timothy Druckrey (New York: Aperture, 1996), 303.

31 Oliver Grau situates this between 17th-century *laterna magica* and Zoe Beloff et al.'s image works: all endeavouring "to communicate with the dead." Grau, *MediaArtHistories* (Cambridge: The MIT Press, 2007), 137-61.

images, which will appear and disappear at a simple movement of the hand, hardly more than a sign. [...] I do not know whether a philosopher has ever dreamed of a company engaged in the home delivery of Sensory Reality. Of all the arts, music is nearest to this transposition into the modern mode. Its very nature and the place it occupies in our world mark it as the first to be transformed in its methods of transmission, reproduction, and even production. It is of all the arts the most in demand, the most involved in social existence, the closest to life, whose organic functioning it animates, accompanies, or imitates.<sup>32</sup>

Admitting that Valéry was a big name,<sup>33</sup> Zielinski has laboriously visited libraries in Hungary, Russia, Latvia, Czech-Slovakia, Poland, Ukraine, Italy, Austria etc. to discover that Giuseppe Mazzolari a.k.a. Josephus Marianus Parthenius attempted in the 18th century to “establish a method of speaking” over distances.<sup>34</sup> Not only Democritus/Epicurus/Lucretius, whom Michel Serres brings to current philosophy,<sup>35</sup> but Empedocles take a chapter since their perception theories “have some bearing upon the frenetic contemporary sphere of activity.”<sup>36</sup> We discover new media interfaces buried in Empedocles’ old yet never obsolete documents; there should be no use digging out *vice versa*, as prominent historiographers do, something Empedoclean and destined to constant progress within certain typical cutting-edge inventions.<sup>37</sup> For the case of a rather popular and communicative (i.e. telepathic) expectation, I appreciate Tom Gunning’s—yet another media archaeologist introduced by Huhtamo—discussion of William H. Mumler, Edward Wyllie et al.’s arguments.<sup>38</sup> Neither they nor David Starr Jordan of sympsychography helped to mold diagnosis. However, the idea of depicting everyday media as tools for a séance—or as mediums—has emerged again in Japanese and mostly Hollywood-remade movies like *Cure* (phonograph record),<sup>39</sup> *Ring* (video tape), *Pulse* (internet), *Dark Water* (instant picture) and *One Missed Call* (mobile phone). Medicine is about outside looking in; mysticism, this world looking beyond.

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32 P. Valéry, “La Conquête de l’ubiquité,” in *Œuvres*, v. II (Paris: Librairie Gallimard, 1960), 1284-85; translated in *Aesthetics* (New York: Pantheon Books, 1964), 226.

33 Cited in Régis Debray, *Vie et mort de l’image: Une Histoire de regard en Occident* (Paris: Éditions Gallimard, 1992); media archaeologists should contextualize Valéry as versatile beyond his petit-bourgeois class: see Jean-Paul Sartre, *Critique de la raison dialectique*, t. I—*Théorie des ensembles pratiques* (Paris: Gallimard, 1960), 43-47.

34 S. Zielinski, *Deep Time of the Media*, 162.

35 M. Serres, *The Birth of Physics* (Manchester: Clinamen Press, 2000).

36 Zielinski, *Deep Time of the Media*, 53.

37 Lisa Gitelman, a Thomas Alba Edison scholar, has been quiet about his failed x-ray experiments and keeps her non-choice as such from Kittler and media archaeology which, she misunderstands, refuses narratives but takes a past tool only to glorify the present in comparison; see *Always Already New: Media, History, and the Data of Culture* (Cambridge: The MIT Press, 2006).

38 T. Gunning, “Phantom Images and Modern Manifestations: Spirit Photography, Magic Theater, Trick Films, and Photography’s Uncanny,” in *Fugitive Images: From Photography to Video*, ed. Patrice Petro (Bloomington: Indiana University Press, 1995).

39 When saying, “Part of the X ray’s power rested in its ability to ‘speak for itself,’ to offer a representation of the inner body apart from its referent in time and space, thus opening it up for intersubjective perception. In that respect, Röntgen’s device resembles a contemporary technological invention: the gramophone,” José van Dijck cited Kittler whose stoic two-dimensional inscription theory seems favoured than Bruno Latour’s; van Dijck, *The Transparent Body: A Cultural Analysis of Medical Imaging* (Seattle: University of Washington Press, 2005), 88. Is this Dutch researcher’s perspective on diagnostic instruments shifting from science studies to media archaeology? Unlikely—because, for instance, not the materiality of *Fantastic Voyage* (either a Richard Fleischer movie or Otto Klement and Jay Lewis Bixby’s novel) but its contents matter to her which report endoscopic desires around 1966.