Title: “The Medium of the Body: Photography and the Senses in the Psychic Laboratory”

Author: Oana Mateescu


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Imagine a room bathed in red light, multiple cameras flashing simultaneously, a naked, writhing female body, a scientist whose fingers are sticky with vaginal fluids and, at the center of it all, the “living” matter – strands, veils and masses of it extruding from the orifices of the medium and then flowing, creeping, jumping and even morphing into objects, organs and images. We are in the very thick of materialization, a space where science, spiritualism and eroticism are uncomfortably exposed to one other by the gaze of the photographic camera. More precisely, we are in the early 20th century “psychic laboratory” of Baron Albert von Schrenck-Notzing (1862-1929), a German psychologist and famous psychical researcher, who is in the midst of a scientific experiment devoted to the study of “teleplastic structures” produced by the medium Eva Carrière (pseudonym of Marthe Béraud) under the guidance of Madame Juliette Bisson, her companion and mentor.

Phenomena of Materialization: A Contribution to the Investigation of Mediumistic Teleplastics (Schrenck-Notzing 1923, henceforth PM), the work that records four years (1909-1913) of such experiments with physical materialization, is the kind of document that actively encourages the suspension of disbelief. How this is achieved – by means of which sensory, graphic and photographic modalities – is a question that brings to the forefront a genre of visual and tactile evidence grounded in indexicality. It also forces attention to the self-reflexivity of photography as a technology of embodiment that strives to graft materiality (of bodies and biological life) onto immateriality (of spirits and the unconscious).

Photography itself has always wavered between iconicity and indexicality as discursive claims to the truth. Used here in their Peircean sense (see also below) as relations of resemblance, respectively causality and contiguity between signs and the objects they represent, iconicity and indexicality cover an interpretive
continuum that takes photographs from images to proofs. It is the latter sense that was central to Schrenck-Notzing’s psychical research – not only because phenomena of materialization had been so often exposed as hoaxes (and were, thus, in dire need of scientific redemption), but also because of the eminently intimate (and, thus, causal and indexical) link between the medium’s female body and the mysterious substance it externalized and shaped into animate forms.

From Spirits to Animate Matter

“The medium is not only the unconscious producer of phantasms, but is the physiological source of material for making them visible.” (PM, 282)

By late 19th century, and particularly after 1882, when the international Society for Psychical Research (SPR) was founded in London, a sizable group of scientists and philosophers were busily displacing spiritualism from the realm of religion and superstition into that of science and natural law. SPR members – philosophers and psychologists (F.H. Myers, Henri Bergson, William James), physicists (William Crookes, William F. Barrett, Oliver Lodge), physiologists and biologists (Charles Richet, Hans Driesch) – were all engaged in trespassing boundaries. This was a groundbreaking work that entailed the creation of new vocabularies and instruments, the imposition of laboratory standards onto the séance and the elaboration of flexible theoretical frameworks that could accommodate phenomena such as hypnotism, ectoplasmic materialization, telepathy or telekinesis (Thurschwell 2001; Wolffram 2009).

The new relationship between the psychical and the physical was made plausible by the redefinition of matter as a plethora of forces, energies, vibrations, waves and rays. Late 19th-century discoveries – electromagnetic waves (1888), X-rays (1895), uranium radioactive emissions (1897), wireless waves (1899), N-rays (1903) – turned matter itself into “a kind of phantasm” (Tiffany 2000, 169), severing the links between materiality, visibility and transmission. New iconographies of matter allowed the visualization of previously inscrutable and imponderable phenomena: just as the microscope had generated debates about degrees of sub-visibility and invisibility (Wilson 1995), radiography and, of course, photography reinforced each other in the creation of a pictorial physics of degrees of materiality (Wilder 2011; Smajic 2010). The physics of this intangible matter – persuasively illustrated by Oliver Lodge’s “etherial bodies” (Raia 2007), William Crookes’ “radiant matter” or Cromwell Varley’s “electrical spiritualism” (Noakes 2008) – allowed the mind to escape the physical confines of the brain and to propagate as vibrations of different frequencies into the ether. Telepathy, in particular, carried over the vocabulary of brain-waves and cerebral radiation into a “photographic model of consciousness” (Enns 2013, 182). Radiating brain waves could be recorded by thought-photography, a practice that even did away with the camera and the lens: thoughts as visual impressions could be directly imprinted onto sensitive photographic plates and emulsions. (Technological) Media replaced (spiritual) mediums.

Undoubtedly, new communication technologies – telegraphy in particular (Otis 2001, 180-219) – did much to promote this fantasy of a dematerialized, instantaneous and apparently unmediated community of thought. Indeed, the new psychical science relied extensively on the parasitical relationship that modern spiritualism had already established with technology. As Kittler (1987, 111; see also Gunning 2007) argues, it was the emergence of media such as photography that promptly called
forth the spirits of the dead in the mid-19th century:

“...the tapping specters of the spiritualistic séances with their messages from the realm of the dead, appeared quite promptly at the moment of the invention of the Morse alphabet in 1837. Promptly, photographic plates – even and especially with the camera shutter closed – provided images of ghosts or specters which, in their black and white fuzziness, only emphasized the moments of resemblance. Finally one of the ten uses Edison predicted... for the recently invented phonograph was to preserve the ‘last words of the dying’.”

In early 20th-century Germany – when Schrenck-Notzing performed his experiments with Eva Carrière – the ambiguous relationship between religion and science took the form of a conflict between “spiritism” and “animism” (Wolfram 2012). Spiritists insisted upon the validity of supernatural interpretations – spirit photographs and materializations are messages from the other world – while animists attributed the existence of psychic phenomena to newly-discovered properties of the mind, specifically, the unconscious. But animism was a decidedly slippery concept. Made famous by anthropologist Edward Tylor (1871) as a form of primitive thought that mixed up spirit and matter (spirit is not the monopoly of humans, but resides also in animals, plants or objects), animism was pejoratively understood as a cultural survival and evolutionary remnant of bygone times. German animists sidestepped this recent semantic baggage and traced the concept back to its original usage by 18th-century chemist and vitalist philosopher G. E. Stahl. In this sense, animism came to denote opposition to both spiritualist and scientific materialist camps, and, particularly so, by its association to various neo-vitalist and holistic theories of life popular in German physiology and biology before World War II (Normandin and Wolfe 2013). Schrenck-Notzing was a definite supporter of animism and his work in PM provided copious material for the articulation of vitalist biologies. Teleplasm was proof of an “impossible corporeality” (Gomel 2007) that hovered on the edges of visibility and materiality and yet teemed with biological life.

Before it was attached by Schrenck-Notzing to all the other tele-phenomena (telepathy, telekinesis etc.), teleplasm was more popularly known under the moniker “ectoplasm”. “Ectoplasm” was coined in the early 1890s by Charles Richet, physiologist and future Nobel-prize winner for medicine. While observing the materializations produced by an Italian female medium, Richet noticed they resembled “sarcoidic extensions emanating from the body of a medium, precisely as a pseudopod from an amoeboid cell” (cited in Brain 2013, 115). He wasted no time in identifying this substance as the primordial protoplasm excreted from within the medium’s body. Thus, “ectoplasm” became living cell matter (protoplasm) that mediums emanated and molded into various shapes via psychic energy. This was a fortuitous scientific explanation for the otherwise mysterious

1) This particular argument in no way detracts from the potential of spiritualism as a reservoir of religious experience. On the contrary, despite the Protestant emphasis on meaning and inner belief at the expense of form and performance, religion – then and now – thrives upon mediation. Communication with divinity or the spiritual realm is enhanced by the participation of technology: if photography, audio-cassettes or video-films generate belief, it is not as a state of mind, but as a material practice, relationship and even social interaction with invisible others (Blanes and Santo 2014; Meyer 2009).

2) Interestingly enough, Tylor would have preferred to use the term spiritualism instead of animism, but was rather dismayed by his few experiences with spirit séances in London (Stacking 1971). Modern spiritualism proved too controversial from a social evolutionary point of view to frame a study of primitive religion.
(and often suspicious) substance that provided so much of the glamour of materialization séances. Moreover, by establishing a link — however formally tenuous — between ectoplasm and protoplasm, Richet made it possible for the newly-hatched psychic science to weld itself to (and, thereby, legitimize itself as) contemporary biological discourse. Protoplasm — made famous by Thomas Huxley as “the physical basis of all life” (cited in Brain 2009, 94) — was at the center of vigorous debates about the nature of evolution and heredity, and, more relevantly for psychic research, it provided the vehicle for the teleological vital force that directed the organization of organic matter. The confuse and creative configurations taken by ectoplasm during séances appeared almost as custom made proofs for the claims made by early 20th century vitalist biology about the existence of an ineffable vital energy that differentiated between living and non-living entities. Dubbed “entelechy” by German embryologist Hans Driesch, this vital impulse residing in protoplasm approached sentient intelligence and evidenced extraordinary plasticity. Driesch, in particular, was instrumental in bringing psychic materializations into the sphere of vitalist biology; indeed, for him these phenomena were but an externalization of the body’s vital forces, a “supernormal embryology” (cited in Wolffram 2003, 156). In this sense, psychic materializations were converted into scientific arguments for a vitalist theory of life.

Both Richet and Driesch were frequent guests to the séances organized by Schrenck-Notzing and their influence resonates throughout the constant analogies drawn in PM between ectoplasm / teleplasm and biological processes. The animated matter of teleplasm is capable of independent movement, it responds to touch, light and sound, it organizes itself into forms, images and living organs and leaves behind cellular detritus that can be conveniently analyzed under the microscope. It reproduces itself, “placenta-like”, as it emerges from Eva’s body in the process of “mediumistic labor” (PM, 250). Its instability, incredible range of movement and metamorphic nature are an almost insurmountable challenge to scientific recording.

Seeing and Recording: Photographic Proofs

“Better even than dynamometers, balances and metronomes is the photographic camera, since it gives positive proofs in the real sense of the word.” (PM, 12)

More than any other scientific instrument, the photographic camera produces “objective registration” (PM, 22). In PM, psychical science is utterly and sometimes even shamefully dependent on photographic evidence. The human senses (vision especially) are unreliable, memory can be retroactively falsified and the assumption of hallucination (not to mention outright fraud) is a constant and particular danger of the psychical field. Inevitably, scientific registration must be rendered independent of the human actor and “transferred to the physical apparatus” (PM, 21). By this account, Schrenck-Notzing subscribed wholeheartedly to a robust notion of “mechanical objectivity”: the role of the camera is not to supply verisimilitude, but to guarantee nonintervention by eliminating human agency (Daston and Galison 1992, 120). By the end of his four years of experiments with the phenomena of materialization, he had seven to nine cameras (including

3) For the continuing relevance of Driesch’s vitalism to the current ontological turn in social science, see Bennett 2010, 62-81.
stereoscopic ones) mounted in different positions of the laboratory and even in the “dark cabinet” where Eva retreated to do her “psycho-dynamic” work. Experimental conditions required photography to provide ubiquitous and simultaneous mechanical visions: “from various points of view, from various distances, from different sides and in different sizes” (PM, 120). Moreover, this was a mobile technology that ensured the séance room could be redesigned as an *ad hoc* laboratory wherever Eva and her mentor travelled (be it Paris, Biarritz or Munich). Each new location is graphically mapped in diagrams that show not just the arrangement of the photographic assemblage (cameras and magnesium flash-light apparatus), but also the position of each piece of furniture, human observer, source of light (chandeliers, red light torches), window and door. This was a set-up that emphasized the recent improvements in exposure times and shutter and flash technologies: the camera became a dynamic instrument that could capture the lightning-fast movements of teleplasm, too rapid to be otherwise accessible to human sight.

As others (Schoonover 2003; Harvey 2007) pointed out, ectoplasm photography had very little in common with traditional spirit photography: instead of static *tableaux* where human subjects are just as rigidly posed as their spirit companions, we have the contorted and spasming bodies of mediums in the very process of biological excretion. Moreover, the camera was no longer a supernatural medium that mysteriously produced spirit images, but a mechanical and often clinical eyewitness that recorded the traces of unusual matter in motion. Photography provided positive proof in an indexical rather than iconic sense: “solid materializations stood in the same relation to spirit photography as did the prostitute to pornography – reality replaced representation” (Harvey 2007, 82).

Indexicality underlines the psychical scientist’s fascination with the process of photographic recording itself: photographs are both acts and objects of observation, both experiments and the evidence of experiments. Indeed, the copious talk of scientific experimentation in *PM* is ultimately reduced to the creation of conditions for the photographic exposure of teleplasm, the fixation and analysis of this fleeting evidence. This is, however, a difficult process constantly beset by failure. Since teleplastic phenomena are highly sensitive to white light, the flash of the camera erases them in the very process of recording. The photographic preservation of evidence is synonymous here with its destruction, emphasizing yet again the fragile, impermanent materiality of the phenomenon (see also Schoonover 2003, 38). The flash acts as a “painful disturbance”, a “sudden blow” on the medium (PM, 329), causing the teleplasm to be suddenly reabsorbed into her body. The undeniable violence exercised by the photographic flash – reminiscent of the cataleptic immobilities produced by flash-light in Charcot’s photography of hysterical subjects at Salpêtrière (Baer 1994; Didi-Huberman 2003) – brings again to the forefront the corporeal and implicitly, indexical nature of photographs. In a case of indexical involution, photography acts back, recursively, on the very phenomena which caused it to come into being. Teleplasm (and / or the medium discharging it) seems to react to, cooperate with (PM, 130), obstruct (PM, 225) and even anticipate the camera: “Even if the cameras are focused on a particular point, the objects, during their short exposure and rapid motion, are often photographed at another place” (PM, 262). Unsurprisingly, this agentive behavior creates expectations of sentience: Schrenck-Notzing describes teleplasm in terms of “intention”, “independent movement” and “creative force”. In more ways than one, the scientific object of the teleplasm is an artifact of the photographic encounter.

And yet, the photographic nature of the teleplasm doesn’t ensure visual legibility. Schrenck-Notzing is constantly frustrated
by “imperfect” and “feeble” photographic results which are too fuzzy to yield judgment by themselves (PM, 71; 85; 90). The nature of the teleplastic phenomenon – whether it is a living form, a white material or an actual organ – “cannot be determined from the photograph” (PM, 71). Indexicality guarantees reality (the photograph is caused by the light reflected from the object it represents), but offers no knowledge by and in itself. “The index asserts nothing” (Peirce 1992, 226); it is a singular and contingent instance of deixis (the word “this” or the finger pointing to “this”) that has meaning only in a context of speech or action. As a “hollowed-out sign” (Doane 2006, 133), void of recognizable content, the index requires further inferential operations. Alternatively, it might be argued, as Didi-Huberman (1984, 68) does for the stain on the shroud of Turin, that it is opaqueness – the very lack of iconicity and figuration – that makes the index such a powerful proof of existence. Figuration would only serve to put into doubt the authenticity of the sign. Of course, this also means indexicality can be deliberately exploited to produce credibility. Harvey (2007, 90) hypothesizes that the obviously fraudulent appearance of spirit photographs was intentional: “in order to make a fake look real, it was made to look really fake.”

In PM, indexicality is given cognitive value by means of the mutual confirmation and corroboration between “optical impressions”, “observations” and photographs. Human perception is constantly checked against observation which is itself brought to the photographic court of appeal: “the photograph is the final link in the chain of observations” (PM, 71). What goes on in the psychical laboratory is not mere seeing or looking: it is “optical induction” (Amann and Knorr Cetina 1990, 100), visual operations carried out through the constant graphic recording of observation. Observation (uninterrupted, exact, detailed, methodical, unprejudiced, sober and scientific) is allied to measurements, recordings, classifications and forms of visualization other than photography (micrographs, radiographs and even drawings). The visual legibility of photography is produced only as the effect of this exegetical labor: “seeing is work” (Amann and Knorr Cetina 1990, 90). The empty indexicality of the photograph is substantiated by constant graphic consummation, emerging as the climax of the clinical graphic method, the final link in a chain of inscriptions.

Touch: The Ontology of the Flesh

“During the touch which she herself made with my finger, she gave a strong and painful shudder and trembled violently.” (PM, 55)

The double nature of the index – scientific trace of the materiality of the teleplasm and erotic point of contact with the feminine body that produces it – threatens to collapse the objectivity assembled in the process of recording. “I requested to be touched” (PM, 64), “she asked me to examine her” (PM, 84) – this is the tactile dance performed by scientist and medium. For Schrenck-Notzing, touch is irrefutable confirmation of the materiality of the visible: its shape, texture or plasticity. He emphasizes the detective and not the sensuous dimension of tactility in a series of rich organic analogies: the teleplasm is like touching “the dark skin of a mushroom,” “the skin of a living reptile,” a “spider’s web” or even “the amputated stump of a child’s arm.” “The living substance” is cool, smooth, sticky, moist and, alternatively, firm and soft. The optical and haptic are irremediably entangled in this visceral knowledge. This is not simply a matter of equivalence and mutual reinforcement between the optical and haptic systems of perception (Gibson 1966, 134), but of
actual reversibility between the actions of seeing and touching. More than anyone, Merleau-Ponty (1968, 134) articulated this relationship as a condition of the lived body: “We must habituate ourselves to think that every visible is cut out in the tangible, every tactile being in some manner promised to visibility, and that there is encroachment, infringement, not only between the touched and the touching, but also between the tangible and the visible...”

If vision is an eminently passive sense (Schrenck-Notzing does not see or look, he only receives optical impressions), touch more than makes up by the scientist’s active exploration and hands-on participation in the experiment. Touch is a local sense that requires proximate bodily contact, fingers roaming and sometimes digging deep into the flesh of the medium. Schrenck-Notzing does not hold back from any kind of probing, regardless of how invasive or sexually contaminated it may be. In the interest of establishing accurate experimental controls, he administers emetics, clothes the medium in a special suit and performs oral, vaginal and anal examinations before and sometimes even during or after the séance. His fingers are as familiar with graphic notation as they are with skin indentation: they travel over tongue, breasts, thighs and the vaginal epithelium, touching, gripping and squeezing; just like teleplasm, they are constantly moist and sticky with bodily fluids.

If during the first two years of experiments, Eva seems to shrink away from tactile probing, later she invites it and sometimes even demands it, while posing completely naked despite the wishes of her lady mentor (PM, 160; 198). Whether these are forms of “erotic misdirection” (Delgado 2011) initiated by the medium to distract from the fraudulent production of teleplasm or performances of sexual surrender intrinsic to materialization is immaterial to the role they play in establishing intersubjectivity between scientist and subject by means of an “ontology of the flesh” (Merleau-Ponty 1968, 139). The relation of tactility is Eva’s most powerful way of guiding and sometimes even controlling the experimental set-up – she asserts herself as a subject by “corporeal intentionality”, touching the experimenter’s hands as they touch her own teleplastic extensions, her body achieving reflexivity by proxy. Tactile reversibility slips into experimental reversibility: the objects of study – “digging their nails into the skin of our hands” (PM, 278) – grab hold of the scientist, playfully, but also violently, exploring his skin and his body.

Schrenck-Notzing ends up converting his body into a recording instrument, registering photographic evidence on his own skin: in the process of mediation, the teleplasm, just as photographic emulsion (Jolly 2002), adheres to his fingers. It is not just his skin that becomes a tactile field open to the exploration of the teleplasm. In a singular and spectacular instance, he himself, as an experimenting subject, turns into a reflective surface for the sentience residing within teleplastic membranes. This happens, very appropriately, on the only occasion that Eva materializes a word rather than a shape or image. The word is “mirror”.

Le Miroir

“You are her mirror. She sees herself here.” (PM, 214)

On the sitting of 27th November 1912, Eva materializes a flat object, coiled around her head. Upon examination of one of the photographs taken that day, Schrenck-Notzing distinguishes the letters “le” and “miro” within the creases of the teleplastic surface. He recognizes the word “le miroir”, but is unable to interpret the “curious result”. The next sitting of 29th November, Eva produces just speech, instead of materializing...
matter. Under the usual hypnosis at the beginning of the sitting, she assumes the alter-ego of “Berthe” and talks directly to the baron, pre-empting his own interpretive work by the simple utterance of the word “mirror”. Eva / Berthe elaborates: “She (Berthe) wanted to write to you the other day. She wanted to send you her written thought. You are her mirror. She sees herself here. You have a photograph of the thought of Berthe. She has the joy of creating another image for herself” (PM, 214).

This particular photograph spurred an entire controversy upon the publication of PM in 1914. French journalists seized it as convincing proof of Eva’s deception and Schrenck-Notzing’s naïve belief: though barely visible in the photograph, the printed word looked very much like the title-page of the French journal Le Miroir (presumably hidden inside Eva’s body before the sitting). This, in turn, put into doubt many of the other images materialized by Eva. The teleplastic faces interpreted by Schrenck-Notzing as evidence of “ideoplastics” – a familiar picture language used by the unknown psychic force behind teleplasm in order to make itself intelligible (PM, 269) – were revealed as photographs of famous figures from the very same journal (among others, president Woodrow Wilson). (see fig. 3)

Schrenck-Notzing was thoroughly incensed by these accusations and retaliated with a massive evidentiary campaign. His primary object was not to defend his own experimental controls, Eva’s honesty or her mentor’s moral standing; these were all secondary to the integrity of the photograph itself. Thus, the main thrust of the additions to the English edition of PM is a forensic demonstration of the photographic impossibility of fraud. Schrenck-Notzing basically called upon photography to exonerate itself: he reconstructed the photographic conditions of the 1912 sittings using title-pages from that year’s issues of Le Miroir, marshalling the expert testimonies of four witnesses – professional photographers and photo-chemists – who independently confirmed the minute, but multiple, differences between the original teleplastic photograph and the simulations based on actual journal pages. He went even further, theorizing (in a work remarkably and apparently deliberately free of hypothesis and explanation) that any resemblances between the teleplastic phenomenon and the Miroir graphics and photographs were due to “the cryptomnesic function of memory” under hypnosis (PM, 306). Eva’s visual reminiscences could unconsciously contaminate the ideoplastic creations because her abnormal memory was analogous to “the sharp definition of a photographic plate” (PM, 305).

If Eva’s memory was akin to a photographic plate, her body was “an exceedingly delicate reagent” (PM, 22) producing teleplastic representations via bio-mechanical replication. Developed in the darkroom of the cabinet, the teleplastic images involuntarily shaped from within the body’s protoplasm were often indistinguishable from photographs and just as sensitive to light. As Gunning (1995, 58) perceptively notes, the medium “became a sort of camera, her spiritual negativity bodying forth a positive image, as the human body behaves like an uncanny photomat, dispensing images from its oriﬁces.” This transformation of female physiology into a photographic mechanism is, in many ways, the culmination of the affair between spiritualism and communication technologies (Brain 2013; Schoonover 2003; Warner 2003). But if Eva’s body is a kind
of camera, Schrenck-Notzing’s own visual records are really mechanical photographs of organic photographs – a form of recursive “remediation” (Bolter and Grusin 2000) that begs the question of agency. Who is recording whom?

It’s precisely this question that comes to light in the *Le Miroir* photograph. Schrenck-Notzing’s impassioned defense of this image cannot be limited to its unique status as evidence of graphic materialization (*PM*, 262); the word becomes flesh, so to speak. Its legibility is provided by Eva / Berthe’s own voice directly interpellating her observer and claiming him as a mirror, a surface to see and inscribe herself upon. For a moment, she reframes the materialization process as an intersubjective relationship of mutual recognition. The medium (photography and Eva) is erased from the process of mediation; we are left with the alterity of the mysterious Berthe. And, of course, the erotic knowledge of two interlocked gazes and two bodies touching each other.

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