

I AM ANAGRAM

Aura Satz

Devised with guidance from
Prof. Chris Frith and
Prof. Jonathan Cole,
in collaboration with
Scott Penrose

I Am Anagram.

Margana Ma I.

Man. Ran. Rain. Rag. Arm.

Nag. Again. Aim. Air. Main.

Gain. Maim. Ragman. Anima.

Amputation. Agnosia.¹

Anosognosia. Alloaesthesia.

Asymbolia. Apraxia.

Aphonia. Apophenia.

Amnesia.

Remembering.

Re-Membering. Members.

Limbs. Limbo. Limbic

System. Phantom Limbs.

Supernumery phantoms.

Neglect Syndrome.

Hemiplegia. Hemi-phantoms.

Hemiplegic twins.

Phantasmagoria. Paraplegia.

Pseudo(poly)melia.

Peripheral Vision. Periscope.

Palindrome. Perpendicular

Mirror. Looking Glass

Syndrome. Autocopy.

Asymmetry. Atrophy.

Anaesthesia. Synaesthesia.

Syndrome. Syncope. Corpse.

Exquisite Corpse. Collage.

Decollage. Inimage. Mirage.

Illusion. Lose.

'Image=Magie.'

Signed, Man Ray.²

I Am Anagram. This body you see before you is an Exquisite Corpse.³ A collage of sorts. A body made of parts, remapped into lost and newly found territories, cartographically disoriented into new shapes. The creases are still visible, like an unfolded spread of

origami paper, but the connective tissue of this organism remains as yet uncharted, and the connections seem improbable.

This phantom anatomy is a foreign language, acoustically unfamiliar, grammatically incorrect, misspelt using invisible alphabets.

Lest you forget, the starting point was pain. This field of knowledge is constructed negatively, it learns itself through loss, accidental injury, catastrophic damage. It almost waits for disaster to happen in order to take that crucial step forward in understanding. Through neurological impairment the brain's networks are uncovered, stumps become pregnant with didactic potential. Raw and exposed, un-gloved, as it were, body-image becomes visible and reveals itself as a ghostly double. A body of knowledge materialises alongside a body of images. Loss is remembered. Limbs are remembered.

Come closer. Mark my words.

As you step inside, slide through, lose yourself in magic, you will dis-member and re-member. You will experience your own body as a phantom, not dead, not lost, but reconfigured, re-spoken, anagrammatically re-assembled into new meanings. You will partake in the obscure equations of interanatomical images. I Am Anagram is here to subtract and multiply, take away and reconstitute. Illusion can open you up and turn you

inside out, outside in, on your head, out of your body. No need for anaesthesia, this anatomical cross-section will splice you in half but you will feel no pain... What, you say? No pain, no gain? No maim, no aim. Yes, dear spectators, expect the unexpected, accept the unacceptable, access the inaccessible, lose the unlosable. Ill-use illusion and prepare to experience yourself as body-image. Gape in wonder as your arm vanishes from sight in a transitional amputation. Your fingers multiply in illusory reduplication, otherwise known as

"pseudo(poly)melia,"⁴ supernumerary accessory extra limbs, circularly expectant like fingers on a séance table. Hold tight as your hand is disembodied, displayed on a plinth like a fragment of classical sculpture. You are archeology. Engage in the irreversible delights of autocopy and outer-body-experience,⁵ see yourself as a palindrome from the outside in, in a non-reversing mirror. Is that you you see before you? Bid farewell to the reassuring glass touch, as you tap the glass in disbelief your fingers will never meet each other, for they are lost in endless parallelisms. You have evolved into the prop, you are hiding in its crevices, unbeknownst to yourself, you have become a phantom. Living inside you is a secondary body, a phantom image which for the most part coincides with your physical body. Until, that is,

something goes amok. Coma, part of you, that is, lies in a coma, unaware and alien. It gradually drifts away, detaches itself and breaks apart, bisects according to an unknown evolution. Leave behind mirror-like symmetry. Suddenly, unilateral motion, one leg, peg leg. Phantom leg. It telescopes out to touch the floor, and retracts, snail-like, back to its hard shell of bone. What is this phantomology, you ask, can I become phantom without dying? Wonder no more. I dare you to participate, dissipate into particles, part into articles, articulate into specularties, speculate on invertebrates, invert mirror images, imagine new anatomies, anatomize into anagrams, body forth as a linguistic puzzle. Lingua as in tongue. Say it with me: 'Tongue', and you feel the tip of that movable fleshy organ attached to the bottom of the inside of your mouth press upon the hard underside of your upper teeth, and then descend to conjoin the glottis with the glossa, a false swallowing sensation which merges the thick part of your tongue with the tubular upper part of your throat. The phantom ending after that unswallowing remains unpronounced. 'Tongue'. Language is full of sounds awaiting a body, emissions of inaudible alphabets, omissions of silent spelling. The tongue is in itself phantom organ, there without actually being there, invisible for the most part but essential for the production of articulation, the emission of articulated speech, it throws

itself about within the bony cage of teeth and palate, colliding with sounds and gasps and resonances, blindly telescopic like a phantom limb that knows itself without seeing itself, it hides within the oral cavity and peeps out with a hiss, it re-assembles itself anew for the production of meaning. Think of your tongue as the first step towards your anagrammatic body....

"A sentence is like a body, apparently inviting us to break it down into components, so its true content reconstitutes itself over and over again in an endless row of anagrams"⁶

Mirrors are marvellously mathematical, they simultaneously subtract and multiply, they take away whatever is behind, and add on to whatever is in front. "Place an unframed mirror at right angles to the photograph of a nude body and move it slowly, keeping it in a perpendicular position. The visible part of the image and its reflection in the mirror form a whole...as the two fragments grow larger and smaller, the double image is created in bubbles... it flows like glycerine along the axis of symmetry. It is absorbed by nothingness like a candle on the red-hot burner of a stove which is nervously aware of melting without realizing that its hideous collapse is reflected in what it is losing."⁷ The mirror amputates reality, leaving gaping holes, but at the same time it proliferates inexistent

anatomies, uninhabitable architectures, illegible alphabets. It halves but it also doubles. The mirror's symmetry reconfigures the body as a powerful palindrome, a reversible anagram of sorts which can be read from left or right, containing the same sequence of letters and the same meaning: "a miracle that invests the lines with indestructibility, an immunity against any future distortion."⁸ Through its twinning doubling tricks it reconstitutes limbs to those at loss. Look in the mirror, place your existent hand in the box in such a way that your phantom hand fits the reflected image like a glove, you must wear this illusory body-image. Now unclench your fist, the real fist, and watch as the phantom fist, the one which experiences disembodied pain, is resurrected, unlocked. 'This is unbelievable... My left arm is plugged in again.... But when I close my eyes it doesn't work.' Three weeks later the phantom arm disappeared, a double vanishing act, a second amputation thanks to the mirror. All that was left was 'phantom fingers and a palm dangling' from his shoulder.⁹ Unfortunately the amputation was not complete, the mirror box could not eliminate the phantom fingers. Fingers are dexterously resilient, they return to haunt the body even when they were never there in the first place.¹⁰ They reappear on the face, remapping a secondary phantom, not only that of the stump but a new

anatomy, a reassembled anagram whereby an amputated finger reappears ‘neatly draped across the ipsilateral cheek.’¹¹ What unusual dactylography, fingerprint-writing – here criminological science is reinvented as neurological cartography, or better still, reverse palmistry, telling not the future but the past, the invisible handprint that contains the destiny of its loss, if only you know how to read it. Anagrammatically, the hand finds its way under the skin, traps itself in a cheek, as if to crystallise a gesture of shock, hand on face aghast, or maybe in a empathetic maternal caress, the hand is saying, I’m still here, don’t worry, I’ll always be by (and in) your side.

Psychic remapping becomes difficult to pry apart from organic remapping, “Every protrusion can take the place of another. We have possibilities of transformation between phallus, nose, ear, hands, feet, fingers, toes, nipples and breasts; every round part can represent another – head, breast, buttocks; every hole can be interchanged with another – mouth, ears (in some respects, eyes and pupils), openings of the nose and anus.... Actions may create artificial caves in the body; the inside of the hand and the inside of the mouth and the inside of the genital region may be substituted for each other...”¹² Unwittingly, you are engaged in an ongoing shape-shifting, constantly readjusting into

focus, refitting, re-gloving your phantasmagoric second-skin. For there is no fixed map, no permanent reserved area for any part of the body.

Everything is subject to dynamic quick-changes and mysterious vanishing acts. “If a hand is deafferented or inactivated for any length of time, it loses its place in the sensory cortex. Its ‘place’, its former place, within hours or days, is rapidly occupied and appropriated by the rest of the body, so that we now have a new but ‘handless’ body-map in the cortex. The inner representation of the inactivated or deafferented body part vanishes cleanly, totally and seamlessly, vanishes without leaving the least residue or trace.”¹³

Is the deafferented, stilled, unarticulated body inarticulate? Can it no longer speak itself, has it lost its tongue? What a mysterious, incomprehensible disappearance act. The stage becomes one’s own body, the spectator becomes oneself, or perhaps the astute eye of those of the medical profession, as often this unsuspecting stage/spectator suffers from anosognosia, impaired awareness of illness, the loss of self-knowledge, and is blindly indifferent to his/her own semi-disappearance. The limb is attributed to someone else, it rejects itself in a case of somatoparaphrenia. Take it away from me, this arm is not mine, it’s my dead brother’s,

it’s a sick joke, a Halloween prop, a cadaverous arm from the morgue. This is not my real hand, “the new hand is bigger and more voluminous than the old one. He adds that he cannot show his old hand, because he does not know where he left it. He says that immediately after the attack there were several hands near his knee.”¹⁴ Just as the limb vanishes, it magically, kaleidoscopically, reappears proliferated, multiplied like a swastika of legs, a swarm of fingers, evoking a multi-armed Kali or the choreographed legs of Busby Berkeley’s *Footlight Parade* (1933). It sprouts forth as a “spare limb”, that is grown “for protection”, or alternatively, hostile actions are initiated by the anarchic limb.¹⁵ “‘Here is my little finger’, the man said pointing to his middle finger, ‘but my thumb is underneath... Incidentally, I already have hundreds of hands and a hundred feet. I already have a thousand fingers.’”¹⁶ More than mere marvel, this requires diagnosis. Does the deciphering neurologist experience wonderment, as he is given a second-hand, second-eye glimpse of phantomology, hallucinatory neuro-psycho-conjuring? Medical astonishment is never far removed from the spectacle of the freak-show. But can this even be considered in the realm of spectacle, as there is no way out, no other point of view, no visualisation other than that of the inner eye of the phantomologist? One can only see this phantom body

through the descriptive eyes of another, by attempting to embody the phantom body, get under its skin, imagine the body’s loss, then imagine its hauntings. Traditional magic’s distinction between the one who knows and shows, and the one who watches bewildered, is undone. There is no dualism. This close-up magic, this inner, interiorized, incarnate magic, is, to the sufferer, a terrifying pandemonium. The limb is a cinematic delirium, a “wild jumping of shapes, sizes, frames... de-actualised into fluttering phantoms... kaleidoscopic, flashing vision.”¹⁷ It hovers seductively in the order of representation, of surrealist manipulations of the image, of art, of spectatorial magic. In a severe neurological unknown of the body, the sense of proprioception, of proper self, of ownership of the body, can lead to a collision, a collapse of the spectatorship of the body – in other words, a condensation of magician, performer and audience into one. Those outside of this incarnate magic can only diagnose, translate, listen and transcribe, try to enter this foreign country, to trace its remappings, to image forth the invisible unimaginable body-image. Non-invasive scans attempt to enter the impenetrable – parts of the brain light up, respond and correspond. The diagnosing body watches the as-yet undiagnosed with fascinated empathy, partaking proprioceptively, becoming, to whatever degree, part of

this body. Neurologist and patient are conjoined at the head, as it were, circumstantially sharing eyes as the former tries to visualise, enter, wear the body-image of the latter. Like a medium or a necromancer, the neurologist aims to convey messages from the absent, phantom limb to the remaining living present body... the neurologist becomes proprioceptively possessed, as it were, by the phantom body. Like the medium’s psychographic transcriptions, messages materialise like cryptographs, anagrams or palindromes, in need of deciphering. *I Am Anagram* reconfigures the spiritualist Ouija Board, a potential alphabet which the body can write itself into, read itself upon, spell itself out in search of the phantom bodies that resides within all bodies, limbless or limbful, able or disabled.

For even without loss or catastrophic injury, the sense of stable fixed body-image is an illusion. Body-image is constantly engaged in its own destruction and in rebuilding itself anew, remapping and re-gloving one part or another. Clothes expand and restrict body-image, utensils can become prosthetic extensions, incorporated and embodied. Limbs themselves are natural prostheses, so to speak, extensions enabling the body to act upon the world. Other bodies can be worn, entered, projected, introjected – children, lovers, or the needy elderly can be latched on like

an appendix, an addendum, an additional organ or limb. “We take parts of the body-images of others into others, and push parts of our body-image into others.”¹⁸ This is body-image intercourse. One’s own perception of self is a complicated constellation of blind-spots (one’s own eyes which cannot see themselves without reflection; one’s own forehead or skull), protrusions (the tip of the nose, arms and legs), and distorted mirror images, reversed, twin-like, but still part and parcel of oneself. And then there is proprioception, the body’s sixth sense of itself, its preconscious kinaesthetic capacity to sense each part of itself through muscular posture and motion, like an imaginary second-skin that is worn with the eyes shut.¹⁹ Body-image thus has no single creator, but is produced through the conjoined authorship of inside and out, proprioception, exteroception, and interception. It follows the same logic – interruption and contiguity – of collaborative authorship as practiced by the surrealists in their Exquisite Corpses (draw, fold, pass). Co-writing, co-drawing, co-seeing become collage, decollage, inimage, interjection, projection. The word at the tip of my tongue becomes your index finger pointing to my foot, which is stepping on your foot.

As though in a bizarre act of cannibalistic autophagy, the missing hand reappears ‘digested’ in the jaw, remapped across the cheek. Perhaps the most common of phantom limb pain is the sensation of a clenched fist, nails digging into the palm. “What, among all the reflexes triggered by a toothache, is the meaning of the fierce muscular reaction of the hand and the fingers as they claw their nails painfully into the skin? The clenched hand is the artificial focus of arousal, a ‘virtual tooth’ which diverts the currents of the veins and nerves from the actual seat of pain to itself, in order to diminish it. In this way the toothache is divided, graphically doubled, at the expense of the hand, whose ‘logical pathos’ becomes its visible expression. Should we then conclude that all of the reflexes of the body, the face, a limb, the tongue, or a muscle – from the most violent to the least perceptible, - may be explained in this way, as a tendency to divert and divide a pain and to counter a real centre of arousal with a virtual one?”²⁰

“During the subsequent month, after episodes of somnambulism and numerous personality changes, she lost her power of sight whilst simultaneously acquiring the ability to see, with undiminished power, with the tip of her nose and her left earlobe. She later experienced a kindred transferral of the sense of smell to her heel... Another fourteen-year-old

girl, in the midst of the same critical phase developed a paroxysmal cough, headaches, an abnormal urge to stretch herself, spasm, facial convulsions accompanied by singing, sleeping fits lasting at times for more than three days, and episodes of somnambulism during which she could see with her hand and read clearly in the dark.”²¹

“She had an intense feeling her left and right side were interchanged. The right side was too light. Objects felt different in the left hand: they had more space there. The right hand was much smaller, especially its inner space. When she clenched her fist, the fingers did not fit her hand.”²²

Such second-hand, second-eye, second-voice ventriloquist acts juxtapose the body of the doctor and that of the patient. Research inevitably collaborates with the patient, uses their malaise in order to further scientific knowledge, quotes the patient’s descriptions in order to accumulate a body of symptomatology. The symptom is often baptised with the name of its discoverer, not its sufferer – to identify the disease and the sufferer would irreversibly bind them in history. Better that role be taken on by the discoverer, who like the Arctic explorer, boldly uncovers uncharted territory. The doctor and patient are part of the same Exquisite Corpse, sharing conjoined authorship,

picking up where one tails off, interjecting where the other has not yet spoken. Like the séance table or the Ouija board, those many pairs of hands on the table eventually forge some meaningful presence, call forth the unspoken, and spell it out. This facilitated communication, a form of collective automatism, merges the sense of agency, joins bodies in order to write out a new body, together. The message indicator seems to move alone, but perhaps it is simply ideomotor response.

“The medium sat with her arms folded, looking steadily at the center of the table. For a few moments there was silence. Then a series of irregular knocks began. “Are you present?” said the medium. The affirmative raps were twice given. “I should think,” said the doctor, “that there were two spirits present.” His words sent a thrill through my heart. “Are there two?” he questioned. A double rap. “Yes, two,” said the medium. “Will it please the spirits to make us conscious of their names in this world?” A single knock. “No.” “Will it please them to say how they are called in the world of spirits?” Again came the irregular raps – 3, 4, 8, 6; then a pause, and 3, 4, 8, 7. “I think,” said the authoress, “they must be numbers. Will the spirits,” she said, “be good enough to aid us? Shall we use the alphabet?” “Yes,” was rapped very quickly. “Are these numbers?” “Yes,” again. “I will write them,” she added, and, doing so,

took up the card and tapped the letters. The spelling was pretty rapid, and ran thus as she tapped, in turn, first the letters, and last the numbers she had already set down: “UNITED STATES ARMY MEDICAL MUSEUM, Nos. 3486, 3487.” The medium looked up with a puzzled expression. “Good gracious!” said I, “they are MY LEGS – MY LEGS!” What followed, I ask no one to believe except those who, like myself, have communed with the things of another sphere. Suddenly I felt a strange return of my self-consciousness. I was reindividuated, so to speak. A strange wonder filled me, and, to the amazement of every one, I arose, and, staggering a little, walked across the room on limbs invisible to them or me. It was no wonder I staggered, for, as I briefly reflected, my legs had been nine months in the strongest alcohol. At this instant all my new friends crowded around me in astonishment.

Presently, however, I felt myself sinking slowly. My legs were going, and in a moment I was resting feebly on my two stumps upon the floor. It was too much. All that was left of me fainted and rolled over senseless.’ From the neurologist Silas Weir Mitchell’s 1866 fictional “The Case of George Dedlow.”²³

The step from the alphabet of the Ouija board to the materialisation of the phantom limbs is seamless, the letters spell out a body, flesh them out, like an

anagram awaiting its new incarnation. Mitchell, credited with coining the term “Phantom Limb”, was instrumental in popularizing these sensory ghosts, at first tentatively in fiction, and subsequently in neuroscience, thus ending the phenomenon’s medical eclipse.²⁴ The term ‘phantom’ implies belief or disbelief in a presence which is phenomenologically felt, known, experienced, but not physically there. Can one believe or disbelieve in the phantom limb? Can you debunk phantomology, like the countless magicians which debunked spiritualism (Harry Houdini to name the most famous)? Can one illusion outsmart the other, prove, then disprove, the illusory mappings of body-image in order to achieve liberating enlightenment? The phantom limb’s de-realisation must be re-materialised in order to make the belief in it, the experience of its pain, vanish once and for all. The promise of medical science, the redemption from pain effected by amputation (often followed by second and third amputations shortening the stump), itself proves illusory, as the illusion of pain takes the place of its reality. The mirrored phantom limb, like the spiritualist debunker, recreates the illusion in order to annihilate it. Seeing a re-integrated coherent body-image hypothetically dupes the body into believing itself whole, allows it to believe it is unclenching its painfully tight fist. Unfortunately, the

mirror’s visual and sensory feedback can prove insufficient to alleviate phantom pain in phantom limbs. For “pain might not be simply a sensation but be a need state, like thirst or hunger. Perhaps the need, in part, is for action.”²⁵ Agency, intention, volition, the sense of acting upon the world creates a better, more convincing illusion of embodiment. It’s not just any arm latched on to coincide with the missing arm, but a prosthetic virtual illusion, an arm which fits, which can desire and execute. This restitution might lead to its final execution, gain a missing limb in order to undo its pain. Unlike the magic trick, where the woman sawed in two is seamlessly conjoined again, here the illusion reconstitutes only to then revert back to loss, to fragment, to incompleteness. When I close my eyes, the resurrected phantom limb vanishes. In traditional conjuring we want to believe, albeit with the titillation of knowing how it is done, knowing it could be undone if only we were disillusioned, watching from the other side, from the inside, equipped with insider knowledge, knowledge from within. In neurological magic, the patient has the knowledge from within, usually structured around pain, and wants to be irreversibly deceived, to perceive integrity from without, to interiorize outsider knowledge as though this will undo, remember the tragedy of

amputation and loss. The illusory neurological deception is constructive, it is there to restore, regenerate, sprout forth, telescope out the missing limb as presence, if only perhaps in order to get rid of it once and for all. The neurologist assumes the guise of the magician debunker, the de-mystifying con-artist, the constructive trickster and cheat, and elevates his illusory showmanship to the dimension of the healer. The collusion of illusion, the shared pact of suspension of disbelief is ethically promoted to a different pact, where the neurologist aims to provide an incarnate and embodied experience of what is essentially the private experience of phantomology in order to alleviate pain. Turning body-image inside-out might enable some outside-in relief. It is the body's belief in its phantom integrity that creates a painful in-between limbo, one that needs proper fleshed-out embodiment or proper flesh-in disembodiment. The body needs full faith in the miraculous restoration,²⁶ the surrogate limb, the prosthesis – for often a 'good' phantom will in fact animate the prosthesis, slapped sharply it will "shoot forth, rekindled, fulgurated,"²⁷ – or definitive disbelief, acceptance of loss, limbllessness.

Oh the joys of being the Conjuror's Assistant, having a metamorphic invincible body which painlessly endures all amputations, fractures, segmentations and

loss. What a wonderfully malleable body-image she must possess, a contortionist of illusion, oblivious to her own gaping holes and cross-sections. Like an anatomical model complete with flaps and secret doors, contraptions that enable a view inside, this anagrammatic body can be re-assembled perforated, traversed, decapitated, knifed, ripped apart and seen in to. She herself is in-the-know, but from her proprioceptive self she is blind, indifferent to her kaleidoscopic spectacle. She assumes the glazed look of non-introspection, the smile of showmanship, demonstrating invincibility and painlessness for the outsider view.

I Am Anagram induces amputation, body agnosia, anosognosia, amnesia, asymbolia, apraxia, aphonia. apophenia (the spontaneous perception of connections and meaningfulness of unrelated phenomena, seeing patterns where none, in fact, exist. "The propensity to see connections between seemingly unrelated objects or ideas most closely links psychosis to creativity"²⁸). *I Am Anagram* dismembers and remembers phantom limbs, enables and disables asymmetry, anagrammatically and palindromatically rewrites the body as an Exquisite Corpse, a collage, a decollage, an inimage, a mirage, an illusion. 'Image=Magie.' Signed, Man Ray.

Notes

- 1 Freud himself had been a neurologist in his youth and it is he who coined the word 'agnosia' in 1891.
- 2 Particularly impressed by the selection of poetic anagrams in Hans Bellmer's book *Petit Anatomie de l'Image*, Man Ray telegrammed Bellmer the following anagram in response: "IMAGE = MAGIE" (Image = Magic).
- 3 Based on an old parlour game, the surrealist collective collage of words or images was played by several people, each of whom would write a phrase on a sheet of paper, fold the paper to conceal part of it, and pass it on to the next player for his contribution. The technique got its name from results obtained in initial playing, "Le cadavre exquis boira le vin nouveau" (The exquisite corpse will drink the young wine).
- 4 PW Halligan & JC Marshall, "Supernumerary phantom limb after right hemispheric stroke." *Journal of Neurol Neurosurg Psychiatry*. 1995 Sep; 59 (3):pp. 341-2; F. Sella, C. Renaseau-leclerc, R Labrecque, "L'homme à six bras. Un examen de membres fantômes surnuméraires après ramollissement sylvien droit." *Revue Neurologique* (Paris), 1996 Mar;152(3):pp. 190-5. D. J. McGonigle, R. Hanninen, S. Salenius, R. Hari, R. S. J. Frackowiak, and C. D. Frith "Whose arm is it anyway? An fMRI case study of supernumerary phantom limb," *Brain* (2002) 125(6): pp. 1265 - 1274.
- 5 O Blanke, T Landis, L Spinelli, M Seeck. "Out-of-body experience and autoscopia of neurological origin" *Brain* (2004) 127, pp. 243-258; P Brugger, "Reflective mirrors: perspective transformation in autoscopic phenomena" *Cognitive Neuropsychiatry* (2002) 7, pp. 179-194.; P Brugger, M Regard, T Landis, "Illusory reduplication of one's own body: phenomenology and classification of autoscopic phenomena." *Cognitive Neuropsychiatry* (1997) 2, pp. 19-38.
- 6 Hans Bellmer, *The Doll*, trans. Malcolm Green (London: Atlas Anti-Classics 14, 2005)
- 7 Hans Bellmer, "Notes on the Subject of the Ball Joint", reprinted in Sue Taylor, *The Anatomy of Anxiety* (London: MIT press, 2000), p. 216.

- 8 Bellmer, *The Doll*, p. 114
- 9 VS Ramachandran & S Blakeslee, *Phantoms in the Brain*, p. 47-9. Also VS Ramachandran, "Consciousness and Body Image: lessons from Phantom Limbs, Capgras Syndrome and Pain Asymbolia", *Philosophical Transactions: Biological Sciences* (Nov 1998) vol. 353, no. 1377, pp. 1851-1859; VS Ramachandran and D. Rogers-Ramachandran, "Synaesthesia in phantom limbs induced with mirrors", *Proceedings: Biological Sciences*, Vol; 263 No 1369 (April 1996), pp. 377-386.
- 10 P Brugger, SS Kollias, RM Müri, G Crelier, M-C Hepp-Reymond, M Regard. "Beyond re-membering: phantom sensation of congenitally absent limbs." *Proceedings of the National Academy of Sciences of the USA* (2000) 97, pp. 6167-6172.
- 11 VS Ramachandran & D Rogers-Ramachandran, "Phantom Limbs and Neural Plasticity." *Archives of Neurology* (2000) 57, pp. 317-320.
- 12 Paul Schilder, *The Image and Appearance of the Human Body* (London: Kegan Paul, Trench, Trubner & Co., 1935), p. 182-3. Ramachandran describes a subject whose phantom foot was aroused during sexual intercourse (*Phantoms in the Brain*, p. 36), supposedly because the foot and genitals are close in the Penfield map.
- 13 Oliver Sacks, *A Leg to Stand On* (London: Picador 1991), p. 180
- 14 Schilder, p. 71
- 15 Peter Brugger, 'Phantomology: The Science of the Body in the Brain,' transcription of paper given at 'Phantom Limb' conference, Goldsmith's College, 2003, online <http://www.artbrain.org/phantomlimb/brugger.html>
- 16 Bellmer, *The Doll*, p. 119, quoting neuropsychiatrist Jean l'Hemite, *L'Image de notre corps*, Paris: Éditions de la Nouvelle Revue Critique, 1939.
- 17 Sacks, p. 111.
- 18 Schilder, p. 235.
- 19 S Gallagher & J Cole, "Body-Image and Body Schema in the Deafferented Subject", *Journal of Mind and Behaviour* 16 (1995), ----
- 20 Bellmer, p. 105-6.
- 21 Cesare Lombroso 'Sensation in Hysteria' quoted in Bellmer, p. 144.
- 23 Silas Weir Mitchell 'George Dedlow', *Atla* no. 105 (July 1866),
- 24 Mitchell SW. *Injuries of Nerves*. (1872, London: Dover reprint 1962).

- 25 J Cole, G Austwick, C Dawson, Z Zhang and R Wynne. "Virtual reality induced agency, embodiment and analgesia in subjects with phantom limb pain", unpublished manuscript.
- 26 Many miraculous restorations feature in Douglas B. Price and Neil J. Twonbly, *The Phantom Limb Phenomenon: A Medical, Folkloric, and Historical Study*, (Washington: Georgetown University Press, 1978)
- 27 Oliver Sacks, *The Man Who Mistook his Wife for a Hat* (London: Picador, 1986) p. 64.
- 28 Peter Brugger, "From Haunted Brain to Haunted Science: A Cognitive Neuroscience View of Paranormal and Pseudoscientific Thought," *Hauntings and Poltergeists: Multidisciplinary Perspectives*, edited by J. Houran and R. Lange (North Carolina: McFarland & Company, Inc. Publishers, 2001).

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