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A Science of Feeling: The Futurist Body and Luciano Folgore's *Ponti sull'oceano*

Abstract: This essay argues for a new approach to the Futurist 'wireless imagination' through the lens of the poet Luciano Folgore, whose collection *Ponti sull'oceano* (1914) demonstrates an interest in the emergent scientific discourses of electromagnetism and radiation. Departing from more familiar representations of Futurist prostheses and technophilia, *Ponti sull'oceano* represents the 'hypersensitive' body as an electrified antenna and a radioactive mass able to channel the stirrings of matter into tactile responses. This embodied mode of receptivity and connectivity posits an alternative and a corrective to the militant Futurist rhetoric of dissolution and self-annihilation, instead emphasizing Folgore's 'wireless imagination' as a sensory experience of sympathetic vibrations shared between poet, reader and material world.

Keywords: Poet as medium, body and technology, the sensing body, science and aesthetics, para-science, telegraphy, radioactivity, electro-magnetic vibrations, tactilism

Stir the senses and you will also stir the brain! Luigi Russolo: *The Art of Noises*.¹

My conscience is a globe of light that darts its rays all around with the fullest strength it can muster, onto the things of this world, beyond the moon, the sun and the stars, into the cosmic night, which is not a limit but a challenge.

Ardengo Soffici: "Rays."2

Introduction

To many readers, the Futurist 'wireless imagination' has long remained synonymous with an art as mechanistic as the subjectivity from which it issues.

¹ Russolo: *The Art of Noises*, p. 86. "Fate prima vibrare i sensi, e farete vibrare anche il cervello!" Maffina: *Luigi Russolo e l'arte dei rumori: Con tutti gli scritti musicali*, p. 175.

^{2 &}quot;La mia coscienza è un globo di luce che saetta i suoi raggi tutt'intorno secondo la forza che le è propria, sulle cose di questo mondo, oltre la luna, il sole e le stelle, per la notte cosmica che non è un limite ma una difficoltà." Soffici: "Raggio", p. 196. All translations are my own unless otherwise noted.

Marinetti's militant manifestos conjure up the familiar image of a steely body bombarded by noise and mobilized for battle. It is only recently that critics have begun to temper the movement's technophilia with a greater attention to the many other scientific influences that set its 'wireless' poetics in motion. Much of the scholarship to date, led by the important recent work of Luciano Chessa and Simona Cigliana, has focussed on Marinetti, Umberto Boccioni, Luigi Russolo and the group of writers and artists around L'Italia futurista.³ The present essay builds on and extends these discussions to Luciano Folgore, whose writings both reflect striking affinities with, and in some cases anticipate, the scientific aesthetics of his contemporaries.

An eclectic poet, translator and editor, Folgore was part of the early Futurist cohort that formed the ranks of Lacerba, La voce and the anthology I poeti futuristi (The Futurist Poets, 1912). His collection of poems, Il canto dei motori (The Song of Motors, 1912), was a paean to mechanized forces and energy, soon to be followed by the technologically inspired poems of Ponti sull'oceano (Bridges over the Ocean, 1914) and Città veloce (Fast City, 1919). Working between Florence and Rome, where he co-edited the journal Avanscoperta in 1916–17, Folgore would formally cut ties with Futurism in 1919, although he remained active in avantgarde circles as a playwright and humorist who explored the machine theme from an often ironic perspective. His witty "rayon poems", penned as part of the Fascist campaign to promote the modern fiber, also filled the pages of major newspapers under the régime. By the 1930s, he had become one of Italy's most popular radio personalities, hosting the long-running Il grammofono della verità (The Gramophone of Truth) and other children's programmes well into the following decade. 4 In an amusing piece composed for one such broadcast, Folgore would describe a uniquely 'wireless' metamorphosis:

³ See Chessa: Luigi Russolo, Futurist; Cigliana: Futurismo esoterico, as well as her recent essay "L'immateriale nell'avanguardia"; Henderson: "Vibratory Modernism: Boccioni, Kupka, and the Ether of Space".

⁴ The most comprehensive study of Folgore remains Salaris: Luciano Folgore e le avanguardie; see also Magni: "Luciano Folgore's Self-Parody: End or Renewal of Futurism?"; Nerucci: "Luciano Folgore, poeta Futurista"; Pizzi: "Pinocchio and the Mechanical Body: Luciano Folgore's Papers at the Getty Research Institute Library". On the "rayon poems", see Schnapp: "The Fabric of Modern Times", pp. 215-220.

Col progresso il cuore umano s'è cambiato in modo strano. L'energia molecolare, l'elettrone e la corrente l'hanno fatto diventare una radio ricevente.⁵

With progress, the human heart has changed in strange ways. Molecular energy, the electron and electricity have turned it into a radio receiver.

These playful, prescient verses ring distinctly Futurist in their rendering of a cybernetic pairing of man and machine – reminiscent, indeed, of Marinetti's emblematic *uomo moltiplicato* (extended man), the superhuman being whose capacities are mechanically enhanced.⁶ While it functions as a technological interface, however, Folgore's "radio of the heart" seems less like a metallic prosthesis designed to augment the body's abilities than an integral element of its sensory experience. The body is not annulled and replaced by mechanical appendages, but remains the central conduit of 'molecular' energy that constitutes and surrounds it.

Such questions would indeed preoccupy Folgore long before he took up the microphone, particularly in *Ponti sull'oceano*. This collection provides a fruitful terrain on which to explore the interplay of science, technology and the body in the 'wireless imagination', and through which I shall reassess the hyper-virile, mechanistic consciousness with which Futurism before the First World War has become synonymous. Invoked in the poem "Arcate" as one of many 'arcs' traced over sea and sky, the title of Ponti sull'oceano points up the communicative networks that a host of technological innovations, from train to telegraph, had made possible at the turn of the last century. Nowhere in the collection, however, do these technologies make an appearance. While *Il canto dei motori* extols engines, battleships and submarines, *Ponti sull'oceano* marks an about-face of sorts to introduce a kind of Futurism that is less overtly mechanistic but no less influenced by the scientific advances of its day. Part of my aim in recovering Ponti sull'oceano from its overlooked place in the Futurist canon is, first, to further illustrate how the waves of experimental science, the ether and the occult were as crucial to shaping the avant-garde as the roaring engines of industrial modernity. In so doing, I wish to untether the idea of 'wireless' itself from the wartime communications technology that inspired Marinetti's telegraphic

⁵ Folgore: "La radio del cuore".

⁶ See the manifesto *L'uomo moltiplicato e il regno della macchina* (Extended Man and the Kingdom of the Machine, 1910/1915).

⁷ See the essays collected in Enns and Trower: *Vibratory Modernism* and Clarke and Dalrymple Henderson: *From Energy to Information*.

Words-in-Freedom, and re-define the term as a heterogeneous array of emanations, vibrations and electrified connections – a web of meanings that remain obscured if we take Marconi's device to be the only operative model for Futurist poetry.8 The root of 'radio' as radiance (from the Latin radius, or ray) reveals an important and underexamined genealogy for the 'wireless imagination' in electromagnetics, X-rays and radioactivity, all of which inform the (para-)scientific poetics of Ponti sull'oceano.

Folgore's collection captures what Bruce Clarke and Linda Henderson have called "the transition from the era of energy to the information age", spanning roughly from the late nineteenth century to the First World War.9 From thermodynamics to quantum physics, modern scientific discoveries uncovered the mysterious phenomena that modern artists, in turn, would seize upon to represent the world. Inspired by radically shifting notions of matter, energy, space and time, Folgore infused his verses with a language of charged particles and pulsing waves. Indeed, such energies are inscribed in the poet's own name, literally 'Lucian Lightning', which he had changed from the decidedly less futuristic Omero Vecchi, or 'Old Homer'. Titles such as "Fosforescenze", "Infinitesimi" and "Oscillazioni" attest to Folgore's abiding curiosity with the hidden stirrings of matter, consistent with the Futurist aim to "give flesh and blood to the invisible, the impalpable, the imponderable, the imperceptible." ¹⁰ Implicit in this project was also a deep fascination with the occult, making the highly attuned artist at once a scientist and a spiritualist medium of sorts, able to access what lies beyond the reach of ordinary perception.¹¹

Of particular interest to me here is the way in which Folgore shuttled between the mutual and overlapping discourses of science and spiritualism to describe embodied experience. In an essay for Lacerba, entitled "Lirismo sintetico e sensazione fisica" (Synthetic Lyricism and Physical Sensation, 1914), Folgore called the poet a "hypersensitive" being who "must teach sensitivity to others, so that

⁸ Although the neologism immaginazione senza fili owes an obvious debt to Marconi, it also encompasses a more general sense of unencumbered movement and liberated intuition. To render this, Doug Thompson uses the term 'untrammelled imagination' in his translation of Marinetti's Critical Writings. I have opted here to follow R. W. Flint's translation of 'wireless imagination' to maintain the term's scientific resonance, without necessarily wanting to restrict its meaning to radio technology.

⁹ Clarke and Henderson: "Introduction" to From Energy to Information, p. 1.

¹⁰ Balla and Depero: "Futurist Reconstruction of the Universe", p. 209.

¹¹ On the impact of occultism on Futurist art, see Cigliana: Futurismo esoterico; Calvesi: "L'écriture médiumnique comme source de l'automatisme futuriste et surréaliste"; Celant: "Futurism and the Occult."

everyone can enjoy refined and almost imperceptible sensations with greater intensity." This new Futurist sensibility finds expression in the 'wireless imagination' and 'synthetic lyricism', the only styles suited to render the "fast currents of our myriad everyday existence." Folgore's comments resonate with Boccioni's account, in Pittura scultura futuriste: Dinamismo plastico (Futurist Painting Sculpture: Plastic Dynamism, 1914), of Futurist 'ultrasensitivity'. Boccioni conveyed through his art a deep fascination with "steam, electricity, combustible fuels, Hertzian waves, and all of the research in biology and chemistry" which, individually and jointly, transformed the world's landscape – and the human sensorium – in radical ways. ¹⁴ Attentive to the "boundless machinations of energy" revealed by science and technology, the Futurist, in Boccioni's words, "doesn't look, observe, measure, or weigh. He feels, and the sensations that envelop him dictate the forms and colors that will arouse the same emotions that spurred his artistic activity." This emphasis on sensation recurs throughout Folgore's poetics, and will guide my analysis of Ponti sull'oceano. The 'wireless imagination', seen from this perspective, functions primarily as a sensory channel, through which ethereal vibrations are experienced on a phenomenological level.

Indeed, as I shall argue in the pages that follow, the poems of *Ponti* sull'oceano enable us to re-insert the organic body into a narrative of Futurism that has so often skewed towards mechanized "prosthetic gods". 16 Folgore steers us away from technological prostheses toward a 'wireless' aesthetics – a term I take, after Terry Eagleton, in its original meaning as a 'discourse of the body'. ¹⁷

^{12 &}quot;Il poeta essendo un ipersensibile deve insegnare la sensibilità agli altri, perché ognuno possa godere con maggiore intensità sensazioni raffinate e quasi impercettibili." Folgore: "Lirismo sintetico e sensazione fisica", p. 2.

¹³ The original reads: "La nuova sensibilita Futurista impone al genio lirico, veramente moderno, una piu profonda e rapida espressione della vita nostra, poiche il periodo tradizionale [...] viene fatalmente urtato e sorpassato dalle veloci correnti della multipla esistenza quotidiana." Folgore: "Lirismo sintetico e sensazione fisica", p. 1.

¹⁴ Boccioni: Futurist Painting Sculpture (Plastic Dynamism), p. 70. "[...] il vapore, l'elettricità, i gaz carburanti, le onde Hertziane, e tutte le ricerche biologiche e chimiche." Boccioni: Pittura scultura futuriste, pp. 45-46. On the impact of modern technology on sensation more broadly, see Danius: The Senses of Modernism.

¹⁵ Boccioni: Futurist Painting Sculpture (Plastic Dynamism), pp. 155, 156. "[...] questi sconfinati intrighi di energie"; "[...] non guarda, non osserva, non misura, non pesa; egli sente, e le sensazioni che lo avvolgono gli dettano le forme e i colori che susciteranno le emozioni che lo hanno fatto agire plasticamente." Boccioni: Pittura scultura futuriste, pp. 325, 329.

¹⁶ See Foster: Prosthetic Gods.

¹⁷ Eagleton: Ideology of the Aesthetic, p. 13. See also Armstrong: Modernism, Technology, and the Body.

While it is true that this body bears the indelible mark of its scientific and technological context, and that the innovations of modernity rendered obsolete a strictly humanist perspective, Folgore did not seek to break free from the flesh entirely, in the manner of Marinetti's 'extended man'. Rather, his poetry manages to accommodate both inhuman waves and pulsations, and the inner rhythms of the human sensorium, without sacrificing "all the vibrations of his being" 18 to those of mechanized matter.

The body electric

It is well known that the Futurist 'wireless imagination' heralds a new understanding of poetic faculties in the age of electronic media. As Timothy Campbell has shown, Marinetti invoked the Imagination of the Romantics alongside Marconi's telegraph in order to transform the lyric *I* into an electrified wireless operator. ¹⁹ So, too, Folgore would sing, in *Il canto dei motori*, of wondrous *Elet*tricità as the lightning-quick power that energizes the poetic voice.²⁰ While this earlier text mainly celebrates the mechanical marvels of electricity, the poem "Messaggi" in *Ponti sull'oceano* makes explicit the interplay of electrified signals and their mystical counterparts. The 'wireless imagination' portrayed here owes much to cultural associations between emergent communications media, such as telegraphy and telephony, and the supernatural. Scientists and occultists alike, notably those active in the Society for Psychical Research, speculated that telepathy and clairvoyance could be explained by electromagnetic waves.²¹ Folgore demonstrates an affinity with this fin-de-siècle understanding of telecommunications as a form of spiritual communion. At once precociously science-fiction and uncannily primitive, the mediumistic subjectivity of "Messaggi" is represented as a visionary seer equipped with an antenna-like brain capable of intercepting cosmic signals:

¹⁸ Marinetti: "Destruction of Syntax - Untrammeled Imagination - Words-in-Freedom", p. 123. "Unica preoccupazione del narrator rendere tutte le vibrazioni del suo io." "Distruzione della sintassi – Immaginazione senza fili – Parole in libertà", p. 70.

¹⁹ See Campbell: "Marinetti, 'Marconista'", pp. 51-67, as well as Campbell: Wireless Writing in the Age of Marconi.

^{20 &}quot;O ingranaggi potenti, / superbi figli dell'Elettrico / che stritolate il sogno e la materia, / odo le vostre sibilanti note / concorrere da tutte le fabbriche, / da tutti i cantieri,/ [...] e magnificare / divinamente / la volontà / che ogni prodigio fa / la libera Elettricità." Folgore: "L'Elettricità", in Il canto dei motori, pp. 68-69.

²¹ See Natale: "A Cosmology of Invisible Fluids" and Luckhurst: The Invention of Telepathy.

Due sole pupille aperte, due macchie d'intelligenza a traverso le tenebre. Un cervello di slancio alla stazione rossa di Marte.²² Two open pupils, two specks of brilliance through the darkness. A brain launched to the red station of Mars.

This 'mental radio' also reflects the influential link established in occult circles between wireless transmissions and paranormal phenomena, as Jeffrey Sconce has shown.²³ Fusing telegraphy and séance, the 'messages' exchanged throughout the poem vacillate between golden flickers that evoke the sparks and flashes of an early Marconi transmitter, and uncanny, otherworldly voices borne on invisible currents: "Two signals, two rays; / first, / then, / at regular intervals, messages ... signals ... / clear once more, divine: We live!"²⁴ Animated by the radiant energy that flows through him, the medium is set aflame like a lightning rod: "A man standing straight up, outside the world, / nearly celestial, a point of flame".²⁵

The channelling of electromagnetic waves implied a hallucinatory experience not unlike that which Marinetti described in the *Technical Manifesto of Futurist Literature*, where *intuizione* enables the poet to transcend and "overcome the seeming hostility that separates our human flesh from the metal of engines." For Marinetti, this experience of *intuizione* hinges primarily on the sense of hearing, activated by the whirring propeller that dictates the manifesto to him. Acoustics offer a means for the Futurist to "penetrate the essence of matter and destroy the dull hostility that cuts it off from us." Indeed, the centrality of the ear still seems to rely on a traditional hierarchy of the senses in which sight and hearing are granted primary status. Although Folgore sim-

²² Folgore: Ponti sull'oceano, p. 54.

²³ Sconce: Haunted Media, pp. 51–69.

²⁴ "Due segni, due raggi; / prima, / poi, / distanziati, uguali, messaggi ... segnali ... / di nuovo chiari, divini: Si vive!" Folgore: *Ponti sull'oceano*, pp. 55–56.

²⁵ "Un uomo ritto al di fuori del mondo, / quasi nel cielo, punto di fiamma." Folgore: *Ponti sull'oceano*, p. 56.

²⁶ Marinetti: "Technical Manifesto of Futurist Literature", p. 113. "Mediante l'intuizione, vinceremo l'ostilità apparentemente irreducible che separa la nostra carne umana dal metallo dei motori." "Manifesto tecnico della letteratura futurista", p. 54.

²⁷ See Campbell: "Marinetti, 'Marconista'", pp. 55-58.

²⁸ Marinetti: "Technical Manifesto of Futurist Literature", p. 112. "[...] penetrare l'essenza della materia e distruggere la sorda ostilità che la separa da noi." "Manifesto tecnico della letteratura futurista", p. 52. Danius offers a lucid summary of the hierarchy of aesthetic perception in *The Senses of Modernism*, pp. 194–195.

ilarly filters Romantic inspiration through an electrified channel, "Messaggi" moves away from the phonocentrism of the Technical Manifesto toward a more somatic, tactile experience, of which the wireless brain is the central node. Here it is useful to revisit Marshall McLuhan: "Electricity offers a means of getting in touch with every facet of being at once, like the brain itself. Electricity is only incidentally visual and auditory; it is primarily tactile."29 Tactility, in this case, refers less to the sense of touch proper than to an experience that engages the entire nervous system, from dilated pupils to trembling knees, in line with a nineteenth-century notion of electricity as a force animating body and spirit.³⁰ In "Messaggi", this experience culminates in a moment of inspired revelation that Folgore fittingly calls "folgorazione lirica dell'anima" – literally, the lyrical electrocution of the soul.31

It is through this blurring of the corporeal and the spiritual that I understand Folgore's mode of the 'wireless imagination' throughout *Ponti sull'oceano*, namely, in terms of what Abbie Garrington has called the "psycho-physiological flicker" of the haptic sense: a faculty that intertwines psychical activity and physical sensation.³² At the height of this tactile experience, the solitary medium of "Messaggi" embodies this duality: "A man who waits, / at the peak of his senses; / a man of pure thought". 33 The 'wireless imagination', from this perspective, entails more than just the channelling of mechanical noise; it is a sensory experience, communicated on and through the body.

Radio-activity

If "Messaggi" points towards a model of wireless transmission, predicated on the body as antenna, the poem "Radio" instead engages the body as an emitter of waves. The "radio" in question is not the feminine noun synonymous with wireless telegraphy, but il radio: radioactive matter. Before radio evolved into the communications medium we know today, the term was initially used in conjunction with electromagnetic radiation, whose existence was predicted in 1865 by James Clerk Maxwell and later proven by Heinrich Hertz. Following Wilhelm

²⁹ McLuhan: Understanding Media, p. 249.

³⁰ See Asendorf: *Batteries of Life*, especially Chapter 11, "Nerves and Electricity".

³¹ Folgore: Ponti sull'oceano, p. 56.

³² Garrington: *Haptic Modernism*, p. 22.

^{33 &}quot;Un uomo in attesa / al culmine dei suoi sensi / un uomo di solo pensiero." Folgore: Ponti sull'oceano, p. 55.

Röntgen's discovery of the X-ray in 1895 and the subsequent identification in 1898 of radium by Pierre and Marie Curie, modern writers and artists became enthralled with all things radioactive. The Images of radiance recur throughout the Futurist repertoire, but Folgore's poem stands out for its specific treatment of radioactivity, mobilized to represent the extraordinary perceptual faculties of the poet-as-medium. What was earlier on a cosmic signal connecting the electrified brain to Mars, now flows in two directions, at once entering forcefully into the body and issuing from it:

Pugno di luce nel cervello, pensiero che vede se stesso nell'impeto della nascita! Blow of light in the brain, thought that sees itself in the impetus of being born!

Vibratile onnipotenza del radio!35

Vibratory omnipotence of radium!

Radium here exceeds its elemental state to become a vital, psychical force. The spontaneous production of luminescence by radioactive matter parallels the birth of thought and the creative alchemy of poeisis, recalling Ezra Pound's definition of poetry as "a sort of energy, something more or less like electricity or radioactivity, a force transfusing, welding and unifying."36 Folgore's depiction of this generative moment reflects a widespread cultural understanding of radium as an agent of life. As Luis Campos has observed, the newly discovered element was considered "stimulating, effervescent, life-giving and omnipresent – if not omnipotent", giving rise to an abundance of investigations aimed at detecting radioactive properties within the human body.³⁷ "Radio" is informed by the para-scientific experiments of Augustin Charpentier and René Blondlot, for instance, which linked radiation to cognitive activity in the form of 'N-rays' emitted by brain and nerve tissues. 38 In Folgore's poem, the vital glow of radium similarly finds its match in the spark of the human intellect – itself a "vivifying element, a soul", as Raffaele Palladino would note in a 1919 article for the Corriere di Napoli, summarizing Blondlot's findings.³⁹ The materialization of thought

³⁴ Morrisson: *Modernism*, *Science*, and *Technology*, pp. 62–63.

³⁵ Folgore: Ponti sull'oceano, p. 66.

³⁶ Pound: "The Serious Artist", p. 49.

³⁷ Campos: "The Birth of Living Radium", p. 17.

³⁸ Brain: "Materialising the Medium", pp. 118–137; Chéroux, "Photographs of Fluids", pp. 114–125.

³⁹ "[...] un elemento vivificatore, un'anima." Palladino: "Radio e intelligenza." *Corriere di Napoli*, 23 December 1919, cited in Piscopo: *Futurismo a Napoli*, p. 87.

as represented in the verses above indeed foregrounds the explicit link between "Radio and Intelligence" in Palladino's account.

Vivified by the 'vibratory omnipotence' of radium, the poet essentially becomes a radioactive mass in his own right. The release of light and heat that occurs during radioactive decay finds its equivalent in the dematerialization of the body:

La carne che si sparpaglia a mazzi. a fiocchi, a spume, entro i canali della materia, per l'assorbimento del dolce, dell'agro, del violento.40

The flesh scatters in bunches. in flakes, in sprays, within the channels of matter, absorbing all sweetness, all bitterness, all violence.

The moment of disintegration staged here represents one of many iterations of Futurist Art as the "need to destroy and scatter oneself," at the core of Futurist aesthetics, as we read in the Technical Manifesto of Futurist Literature."41 Perhaps the most familiar expression of such "scattering", or sparpagliamento, comes through Marinetti's 'extended' man, for whom the dispersal of the self culminates in the "the imminent, inevitable identification of man with his motorcar, so as to facilitate and perfect an unending exchange of intuitions, rhythms, instincts", 42 which the poet must render. By tapping into this hidden life of mechanized matter, man might "externalize his will" and sprout metallic wings to fully inhabit the motor, the ultimate symbol of dynamic speed. 43 For the uomo moltiplicato to activate this latent energy is therefore to overcome the division of matter and spirit, and hence cast the body beyond its mortal state, or, as the Futurist radio manifesto of 1933 puts it, "going beyond death 'with the

⁴⁰ Folgore: Ponti sull'oceano, p. 67.

⁴¹ Marinetti: "Technical Manifesto of Futurist Literature", p. 113; "L'arte è un bisogno di distruggersi e di sparpagliarsi." "Manifesto tecnico della letteratura futurista", p. 54.

⁴² Marinetti: "Extended Man and the Kingdom of the Machine", p. 86. "[...] l'imminente e inevitabile identificazione dell'uomo col motore, facilitando e perfezionando uno scambio incessante d'intuizione, di ritmo, d'istinto e di disciplina metallica." "L'uomo moltiplicato e il regno della macchina", p. 299.

⁴³ Marinetti: "Multiplied Man and the Reign of the Machine", p. 90. "Noi crediamo alla possibilità di un numero incalcolabile di trasformazioni umane, e dichiariamo senza sorridere che nella carne dell'uomo dormono delle ali." "L'uomo moltiplicato e il regno della macchina", p. 299.

metallization of the human body and seizing hold of the spirit of life as a driving force'."44

Even as it seeks to harness the vital energy within matter, Folgore's account of sparpagliamento in "Radio" departs from the Lamarckian hypothesis of bodily transformation to which Marinetti referred in "Extended Man and the Kingdom of the Machine". The disintegration of the radioactive body does not necessarily entail its metamorphosis into steel; rather, it owes more to a biological model of elemental transmutation, whereby unstable radioactive bodies progressively evolve from heavier to lighter forms. 45 Read from this perspective, Folgore's radioactive subject follows the evolutionary trajectory of all living beings, not metallized yet aspiring all the same to transmute into new and ever-changing forms of energy. Palladino reminds us that human intelligence possesses a "half-life" that evolves into "forms that we are unable to discover with our present means", a transformation that also entails the "perfecting" of its perceptual faculties. 46 We might say, then, that the "vibratory omnipotence" of "Radio" is achieved not by transcending the carnal body, but by working through it. As we have seen in "Messaggi", the vitalistic discourse of radium fuses the intellectual and the somatic, marking a shift from metallization to what I will call "radio-activity": an internalized mode of receptivity to sensation that mediates the vibrations of matter into a corporeal, tactile response.

In this radio-active experience, radiation meets radioscopy. Just like the Futurist painters did, Folgore aligned the power of X-rays with the "sharpened and multiplied sensibilities" of the modern artist. 47 Just as the X-ray cuts through opaque surfaces to produce luminous images of what lies beneath, the mediumistic subjectivity of "Radio" is able to penetrate "deep into the fibres between

⁴⁴ Marinetti and Masnata: "The Radio", p. 411. "Superamento della morte 'con una metallizzazione del corpo umano e la captazione dello spirito vitale come forza macchina." "La radia", p. 206.

⁴⁵ Campos: "Birth of Living Radium", pp. 4-5.

^{46 &}quot;Le sostanze radioattive posseggono ognuna una vita media [...] Non altrimenti l'intelligenza possiede una vita media dopodiché si trasforma, si evolve in forme che i nostri mezzi sono ancora impossibilitati a scovrire. E colla evoluzione dell'intelligenza, si va perfezionando nello stesso tempo i mezzi a sua disposizione per la percezione delle cose esterne." Palladino: "Radio e intelligenza", p. 87.

⁴⁷ The Technical Manifesto of Futurist Painting (1910) reads: "Who can still believe in the opacity of bodies, since our sharpened and multiplied sensibilities have already grasped the obscure manifestations of mediums? Why should we continue to create works that don't take into account our growing visual powers which can yield results analogous to those of X rays?" In Futurism: An Anthology, p. 65.

cell and cell" and disclose the "whisper of the unknown" within solid matter. 48 Taking on a curiously biological cast, X-ray vision becomes a microscopic gaze that magnifies cellular tissues invisible to the naked eye. These verses do not accentuate the spectrality of the body, but somehow amplify its fleshiness. Thus radiant waves not only penetrate and emanate from the skin; they are also of the skin:

Trasmigrazione lenta degli occhi su strade di raggi, verso i continenti del chiaro, vibrante passeggiata delle dita, lungo i giardini dell'impercettibile, nella raccolta di brividi floreali.49

Slowly the eyes migrate over paths of rays, toward continents of light, vibrant passage of the fingertips, along the gardens of the imperceptible, gathering floral shivers.

The hand – so prominent an image for X-ray technology⁵⁰ – takes on a new importance here, as Folgore again casts a visionary moment in tactile terms, fusing eye and fingertips. Strikingly, "Radio" anticipates the concepts that Marinetti would theorize nearly a decade later in his two tactilism manifestos.⁵¹ In this case, too, tactility entails more than touch, strictly speaking, referring instead to a "confusion of interlacing senses" that have yet to be defined.⁵² In the 1924 version of the manifesto, the sense of touch was particularly relevant to the mediumistic capabilities of the Futurist poet, as a form of synaesthesia that bridges the physical and the metaphysical. Equipped with this all-encompassing sense, Marinetti's tactilist possessed mani veggenti ("hands that see")⁵³ that were specially suited to the task of laying bare the stirrings of the universe. Seeing-as-touching

^{48 &}quot;Giù nelle fibre tra cellula e cellula / bisbiglio di ignoto, / avviso improvviso, / ma tenue, / dello stupore del nuovo." Folgore: Ponti sull'oceano, p. 67.

⁴⁹ Folgore: Ponti sull'oceano, pp. 66-67.

⁵⁰ The first X-ray image showed the hand of Röntgen's wife Bertha.

⁵¹ The first was based on a speech given at the Théâtre de l'Œuvre on 15 January 1921 and was published in Commædia on 16 January 1921. An Italian version, dated 11 January 1921, was published as a four-page leaflet on 20 April 1921. A sequel appeared first in English in the New York journal Futurist Aristocracy (April 1923), in Italian in L'impero (17 February 1925) and in a final version in L'Ambrosiano on 8 and 10 November 1924. The only reader, to my knowledge, to notice Folgore's link to Marinetti's manifestos is Claudia Salaris: Luciano Folgore, p. 29. I shall expand on this connection further down.

⁵² Marinetti: "Tactilism: Toward the Discovery of New Senses", p. 379. "[...] quel confuso assieme di sensi intrecciati che costituisce le forze tipiche della macchina umana." "Alla scoperta di nuovi sensi", p. 179.

⁵³ Marinetti: "Tactilism: Toward the Discovery of New Senses", p. 378. "Alla scoperta di nuovi sensi", p. 178.

indeed denotes a new mode of cognition that exceeds the abilities of the brain itself, enabling the Futurist to better "penetrate the true essence of matter" and, ultimately, abolish the distinction between matter and spirit.⁵⁴ "Radio" already signals a proto-tactile imagination at work, long before Marinetti would give it a name. Conflating sight and touch, Folgore previewed the "intervisionary sense" that emboldens the tactilist to see inside opaque bodies, including his own.⁵⁵ Just as the 1924 tactilism manifesto locates thought on the "epidermic frontiers" of the body, so too is the glowing pensiero that materializes in "Radio" inextricable from shivers felt on the surface of the skin.⁵⁶

In Ponti sull'oceano, I want to suggest, tactility functions as more than a cognitive mode that reveals hidden vibrations. "Radio" mobilizes a tactile sensibility – diffuse and synaesthetic though it may be – not only to perceive what lies beyond the limits of ordinary perception; through tactility, the body of the poet-medium also makes sense of itself. As X-ray eyes give way to seeing fingertips, tactility enables a double vision of sorts, of the body's inner workings and of its place amid the "atoms and cells" that the Futurist should disclose: "A vision of himself / in the complex / of atoms, of cells."57 For Folgore, then, the tactile also engages a kind of perception of movement arising from stimuli within the body itself, whereby the 'hypersensitive' subjectivity negotiates its very state of being in space, and also delimits some sense of selfhood. Garrington's formulation is again useful here: "The haptic is intimately connected to the constitution of the self, and it is so by virtue of its very intimacy, its operation on the carnal border between self and world."58 To speak of a 'self' would seem contrary to the Futurist objective of annulling any trace of a unifying I, particularly in light of the scientific themes I have been addressing. As Fausto Curi notes, 'overwhelmed' by what science and technology enable the human senses to perceive, all the Futurist can do is aim to reproduce these phenomena; a subjectivity may subsist only inasmuch as it chooses to "annihilate itself in order to give life to

⁵⁴ Marinetti: "Tactilism: Toward the Discovery of New Senses", p. 378. "Attraverso quella probantissima ipotesi che considera la materia come un'armonia di sistemi elettronici, siamo giunti a negare la distinzione tra spirito e materia. [...] Col Tattilismo ci proponiamo di penetrare meglio e fuori dai metodi scientifici la vera essenza della materia." "Alla scoperta di nuovi sensi", p. 179.

⁵⁵ Marinetti: "Tactilism: Toward the Discovery of New Senses", p. 378.

⁵⁶ Marinetti: "Tactilism: Toward the Discovery of New Senses", p. 378.

^{57 &}quot;Una visione di se stesso / nel complesso / degli atomi, delle cellule." Folgore: Ponti sull'oceano, p. 67.

⁵⁸ Garrington: Haptic Modernism, p. 17.

the 'geometric and mechanical splendor' of 'matter'." 59 Yet I would contend that an attention to the haptic sense complicates this account of the Futurist subject, putting into question the euphoric destructiveness of prewar Futurism. Folgore's poetic emphasis on physical sensation allows for an interpretation of a Futurist body that simultaneously inhabits the 'splendor' of matter and also resists the kind of self-annihilation that this experience entails.

A body that matters?

To approach this question, I turn to "Materia". Subtitled sensazione fisica, Folgore's free-word poem puts into practice the principles outlined in the *Lacerba* essay with which I began. For the 'hypersensitive' poet, as Folgore explains in "Lirismo sintetico e sensazione fisica", physical sensation serves as an interpretive mode through which to make sense of, and represent, the "analogical basis of things".60 As its title suggests, "Materia" reflects the Futurist desire to 'divine' the world of pure matter, unencumbered by psychology: "Take care not to bestow human feelings on matter; guess rather what its different determining impulses will be, its compressive and its expansive forces, what binds it, what breaks it down, its mass of swarming molecules or its swirling electrons".61 Yet Folgore's representation of matter emerges not as an "incomprehensible, inhuman alliance of its molecules or its electrons", but under a strikingly human guise. 62 At the core of "Materia", in other words, is the body itself as matter:

⁵⁹ Curi: "Marinetti, il soggetto, la materia", pp. 296, 302.

⁶⁰ Folgore: "Lirismo sintetico e sensazione fisica", p. 2.

⁶¹ Marinetti: "Technical Manifesto of Futurist Literature", p. 111. "Guardatevi dal prestare alla materia i sentimenti umani, ma indovinate piuttosto i suoi differenti impulsi direttivi, le sue forze di compressione, di dilatazione, di coesione, e di disgregazione, le sue torme di molecole in massa o i suoi turbini di elettroni." "Manifesto tecnico della letteratura futurista", p. 50.

⁶² Marinetti: "Technical Manifesto of Futurist Literature", p. 111. "[...] l'alleanza incomprensibile e inumana delle sue molecole o dei suoi elettroni." "Manifesto tecnico della letteratura futurista", pp. 50-51.

Steep walls Longtunnel Pareti a piombo Lungo sotof cold Every naked limb terraneo del freddo Corsa di racing with feet bitten tutte le membra nude coi piedi morsi floors of shivers Crusts da pavimenti di brividi Incrofrozen red Knots stazioni di rosso ghiacciato nodi di opaque purple stiffness yellowish viola opaco rigidità giallastra verstrainedonthe greenish orange dastra arancione rattratta sul precipiresounding precipice of steps Three zio sonoro dei passi Trp corsharp corridors in the brain Tangle ridoi a punta nel cervello Groviof nerves in turmoil glio dei nervi in tumulto A destra right a sinistra left nel centro center ondulazioni dell'istinto instinctual undulations capofitto headlong a sinistra con le pareti a piombo sulle at left with steep walls on the shoulders spalle FLEETING SPACE OF WARMTH BREVE PIAZZA DI CALDO CONCA AZZURRA DI LUCE AZURE VALLEY OF LIGHT

Fig. 1: A page from Luciano Folgore's "Materia", as it appears in the edition of Ponti sull'oceano published by Edizioni futuriste di "Poesia" in 1914.

In a way, "Materia" is one among the "dramas of humanized matter" which the Technical Manifesto of Futurist Literature would caution against. 63 But the text allows us to approach Futurism's "obsession with matter" less as an outright negation of the *I* than as a meditation on the body's sensory capabilities, here staged on what reads like a strenuous climb through a mountainous landscape. The experience of matter fully engages the tactile sense, from colour to texture to pressure and temperature. In keeping with the Futurist demand for impersonality, feeling is re-circuited from human psychology to the naked soles of the feet and the nerve endings of the brain. Sensory responses ripple though the skin and are rendered in the gasps of a subject that inspires and perspires, an io lirico that is all skin and nerves.

In one sense, the body is again reduced to a kind of mediumistic antenna that channels sensory data. But the information that issues from this fragmented

⁶³ Marinetti: "Technical Manifesto of Futurist Literature", p. 111. "[...] i drammi della materia umanizzata." "Manifesto tecnico della letteratura futurista", p. 50.

⁶⁴ Marinetti: "Technical Manifesto of Futurist Literature", p. 111. "[...] l'ossessione lirica della materia." "Manifesto tecnico della letteratura futurista", p. 50.

body does not come from the vibrations of metal or steel. These Words-in-Freedom are far from the "mechanical synaesthesia" that Johanna Drucker reads in Marinetti's rapid-fire language of industrial technology. 65 Untethered from the aggressive bombast of the manifestos, "Materia", rather, quivers quietly with pulsations and vibrations. The text reorients the centrifugal onomatopoeia of Marinetti's zangs and tumbs toward a more centripetal poetics of tactility in which the play of language is anchored in shifting somatic sensations, mimicking the "tangle of nerves" of the sensing subject. The principles outlined in "Lirismo sintetico e sensazione fisica" make this clear. The forceful thrust of the infinitive gives way to nouns that hover in a tremulous space between sound and action, stasis and motion. In "Materia" and throughout Ponti sull'oceano, action-nouns convey repeated yet barely perceptible oscillations that never seem to come to a head (an in-betweenness that is hard to render in translation). Prepositions, too, replace verbs to take on an almost molecular function as the primary conduits ("ascensori e propulsori") for the "lyrical sensations" that the Futurist text intends to convey. 66 Folgore's poetics of sensation therefore suggest a new way of understanding the page of parole in libertà: no longer a sounding board for mechanized non-sense, but a dynamic tactile surface – itself a kind of skin, as it were – that mediates the "instinctual undulations" of the body.

Through the connective tissue of the page, "Materia" also makes sensory experience communicable on the telepathic model of 'sympathetic vibrations' that radiate outwardly from the 'hypersensitive' subject to other equally receptive bodies. 67 Thus Folgore reminds us, in "Lirismo sintetico", that the poet-asmedium must teach readers to hone their own sensorium, "so that each person may enjoy, with greater intensity, refined and barely perceptible sensations."68 In lending verbal shape to feelings, Folgore transforms the "mediumistic materializations" that the Futurist painters sought to capture on their canvases into

⁶⁵ See Drucker: *The Visible Word*, pp. 105–116.

⁶⁶ Folgore: "Abolito il verbo, il movimento alle masse liriche può venire impresso dalle preposizioni che agiscono [...] da ascensori e propulsori, e spostano sui diversi piani delle nostre emozioni ed impressioni, le sensazioni liriche." "Lirismo sintetico e sensazione fisica", p. 2.

⁶⁷ Enns and Trower: Vibratory Modernism, pp. 5–8. Marinetti's tactilism manifesto of 1921 draws on a similar notion of sensory telepathy: "Intensify communication and association among human beings. Break down the distances and barriers that separate them in love and friendship." Marinetti: "Tactilism: A Futurist Manifesto", pp. 371-372. "Intensificate le comunicazioni e le fusioni degli esseri umani. Distruggete le distanze e le barriere che li separano nell'amore e nell'amicizia." "Il tattilismo", p. 161.

⁶⁸ Folgore: "perché ognuno possa godere con maggiore intensità sensazioni raffinate e quasi impercettibili." "Lirismo sintetico e sensazione fisica", p. 2.

Words-in-Freedom.⁶⁹ A key intertext for "Materia", indeed, is Boccioni's 1912 painting of the same name, understood to represent the projection of shifting states of mind.⁷⁰ We might read Folgore's sensory renderings as poetic translations of the ectoplasmic 'thought-forms' that researchers from Hippolyte Baraduc to Charles Leadbeater and Annie Besant attempted to record on photographic plates; such experiments indeed proved highly influential for Futurist aesthetics. 71 These 'effluvia' exist outside the sensing subject, but also emanate from within. Folgore establishes a Futurist correspondance of sorts between the veins and their verdant surroundings, in a "vibratory confluence" of dynamic matter:

Accordi tra boschi e giardini tra macchie e cespugli entro la sonorità dell'anima confluenza vibratile di vene di verde in amore Crescere lento di steli dentro gli occhi e strisciare sottile lungo le membra di filamenti umidi.72

Harmonies among forests and gardens among bushes and brush within the resonance of the soul vibratory confluence of verdant veins in love Slow growth of stalks within the eyes and slight slithering of damp filaments along the limbs

In this sense-scape, it is hard to know where skin ends and surroundings begin. The human form grows increasingly amorphous, dissipating into the "one all-permeating substance that binds the whole of the particles of matter together", as Oliver Lodge described the ether.⁷³ As physical sensation intensifies, so does the tendency towards dissipation:

^{69 &}quot;Within the intuition of physical transcendentalism and plastic states of mind, the biological mystery of mediumistic materialization is something certain and clear for us." Boccioni: Futurist Painting Sculpture (Plastic Dynamism), p. 156. "Per noi il mistero biologico della materializzazione medianica è una certezza, una chiarezza nell'intuizione del transcendentalismo fisico e degli stati d'animo plastici." Pittura scultura futuriste, p. 329.

⁷⁰ See Henderson: "Vibratory Modernism", pp. 136ff.

⁷¹ Chessa: Luigi Russolo, pp. 27-28. 72 Folgore: Ponti sull'oceano, p. 148.

⁷³ Lodge: Continuity: The Presidential Address to the British Association for 1913, p. 66.

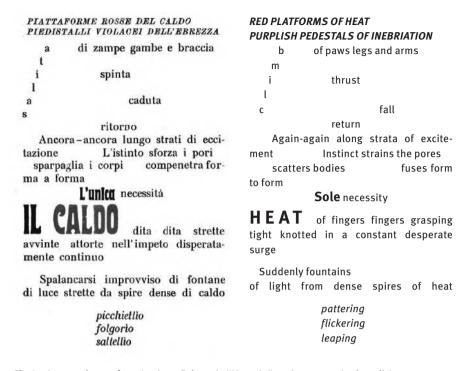


Fig 2.: A second page from Luciano Folgore's "Materia", as it appears in the edition of Ponti sull'oceano published by Edizioni futuriste di "Poesia" in 1914.

The sensory exhibitantion of "Materia" recalls the experience of sparpagliamento that we have encountered before. But here the body that scatters is also one that is pushed to the limits of exertion and encumbered by its own heft: "Weight of the will that slithers along / the cliff of the senses / The instinct marches / strenuous push of soft masses / on the fullest veins / A limit."⁷⁴ Like the textual fabric, in flux between free-floating letters and heftier blocks, the sensing body oscillates from fleshy substance to fragmented fibres and back again. This dualism is not of course unique to "Materia", but constitutive of the broader tension within the Futurist subject, torn between spirit and matter, feminine corporeality and the masculine realm of weightlessness. What Folgore makes explicit is the liminal position of the sensing body caught between these opposing forces.

^{74 &}quot;Peso della volontà che scivola lungo / il pendio dei sensi / L'istinto in marcia / faticosa spinta di masse molli / sulle vene più grevi / Un limite." Folgore: Ponti sull'oceano, p. 149.

Within this poetics of physical sensation, I am inclined to discern a certain ambivalence toward the self-destruction implied by *sparpagliamento*, if not an outright attachment to maintaining the boundaries that separate the carnal body from evanescent matter.⁷⁵ This interplay of dispersal and its opposite is matched at the stylistic level, as Folgore is careful to underline in "Lirismo sintetico": although the practitioner of his sensory poetics should render dynamic impressions "without giving the intellect time to define, explain, or comment upon them", the prevalence of nouns over verbs ensures "a greater corporeality of expression, formed of tangible, ponderable elements, which never falls into the indeterminate and indefinite."⁷⁶ Substantives keep the text from devolving into the "noncommunicative, nonlinguistic visual chaos" of Marinetti's Wordsin-Freedom, to borrow Drucker's phrase.⁷⁷ I propose that we take seriously this emphasis on sostantivi as substance and not just as nouns - an emphasis that extends from an artistic concern to a broader conceptual preoccupation with the fleshiness of the body itself. The body that is fragmented into a collection of vibrating fibres and filaments nonetheless retains a measure of the corporeality that mechanization aims to negate.

Enlivened though it may be by the electrified and radioactive flows of which it is a part, the 'hypersensitive' subjectivity of *Ponti sull'oceano* approaches, but remains unable to fully transcend, the gap that separates the fleshy body from the vitality of matter. Although this body revels in the energies that surround it, it also expresses a certain anxiety at the possibility of dissolution. The experience of *sparpagliamento*, then, comes to signify both the heroic power of the poet-medium and a more threatening breach of corporeal boundaries. To the "violent opening of worlds" that "vibratory omnipotence" makes possible, the subject of "Radio" reacts with surprising caution: "Violent opening of worlds; / capricious senses, / released senses, / senses shying away from too much freedom." Once the radiant body begins to dematerialize, it finally comes to rest with a "strenuous return" to thought that interrupts this transcendent experience at its most intense. I quote the poem's conclusion in full:

⁷⁵ In this respect, too, the poetic "Materia" approaches its pictorial counterpart; see Poggi's reading of Boccioni's *Materia* in *Inventing Futurism*, pp. 150–180, which highlights the contradictions within Futurist fantasies of metallization.

⁷⁶ "Ne deriva quindi una maggiore corposità dell'espressione, che risulta perciò formata da elementi ponderabili, tangibili, e non cade mai nell'indeterminato e nell'indefinito." Folgore: "Lirismo sintetico e sensazione fisica", p. 2.

⁷⁷ Drucker: The Visible Word, p. 107.

⁷⁸ "Apertura violenta di mondi; / sensi vagabondi, / sensi scarcerati, / sensi timidi avanti a troppa libertà". Folgore: *Ponti sull'oceano*, p. 66.

Tormento. Un attimo di indecisione. Poi faticoso ritorno con un fardello immenso nel pensiero

con un carico di mistero entro ogni senso,

E tutta una solitudine di lavoro, una visione di se stesso,

nel complesso

degli atomi, delle cellule,

che svolgono

a fior degli occhi, delle dita, dell'anima

una luce, un brivido, un'angoscia.79

Torment.

A moment of indecision. Then, strenuous return with an immense burden

to thought

loaded with mystery within every sense, And solitary labour, a vision of oneself. amid the matrix of atoms, of cells, which unfold

on the surface of the eyes, the fingertips,

the soul

a light, a shiver, an angst

I am interested in this final move from weightlessness back to embodiment – an experience in which sparpagliamento is imbricated, as it has been all along, with feeling, both literal and metaphorical. The inability of Folgore's poet-medium to transcend the limits of the body may be understood as a form of loss. As Glauco Viazzi has observed, the optimistic posture of *Il canto dei motori* yields to the "degradation of an individual defeat", in which the Futurist "aspiration towards the horizon and the heights of the cosmos yields to a deep identification with the objective reality of everyday life."80 Within the 'shiver' of touch in these verses, we might indeed identify the shudder of the modern subject. It has been argued that Marinetti's tactilism manifesto of 1921, in particular, diagnosed and reacted to the malaise produced by the alienating technologies of the Great War, via an immersion in corporeality.81 In a similar way, the trembling skin and nerves of Folgore's subject foregrounds a sensory crisis within Futurism's *macchinolatria*, not just in the postwar period but already from its 'heroic' beginnings.82

Perhaps, then, we might hypothesize the return to touch as a 'tragic' alternative that is also an implicit corrective to the mechanistic rhetoric of dissolution that underpins the heroic fantasy of the Futurist *superuomo*. It is this cutaneous sensibility that both opens up the poet-medium to otherwise invisible, imperceptible vibrations, and also keeps the body's surface intact. In this sense, the

⁷⁹ Folgore: *Ponti sull'oceano*, p. 67.

⁸⁰ Viazzi: I poeti del futurismo, p. 190.

⁸¹ See Berghaus: "Marinetti's Volte-Face of 1920" and Spackman: "Touching the Future".

⁸² Compare, for instance, Berghaus: "Futurism and the Technological Imagination Poised Between Machine Cult and Machine Angst."

poetics of physical sensation capture the paradox at the heart of the Futurist body: tactility is at once what enables the Futurist to access the vitality of matter and what establishes the very boundaries that he would otherwise aim to overcome. Thus Folgore's poet-medium remains divided in equal measure between solid corporeal mass and weightless spirit, simultaneously fused with matter and bounded by its own skin. At its most vertiginous moment, the 'hypersensitive' subject of Ponti sull'oceano does not overcome its earthbound state, but simply revels in the experience of being:

Malessere Benessere Ill-being well-being essere being essere being being essere8

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