DOCTORS OF L'ESPRIT NOUVEAU (1920-1925):

ENERGY, PSYCHOLOGY AND THE MODERN AESTHETIC SUBJECT

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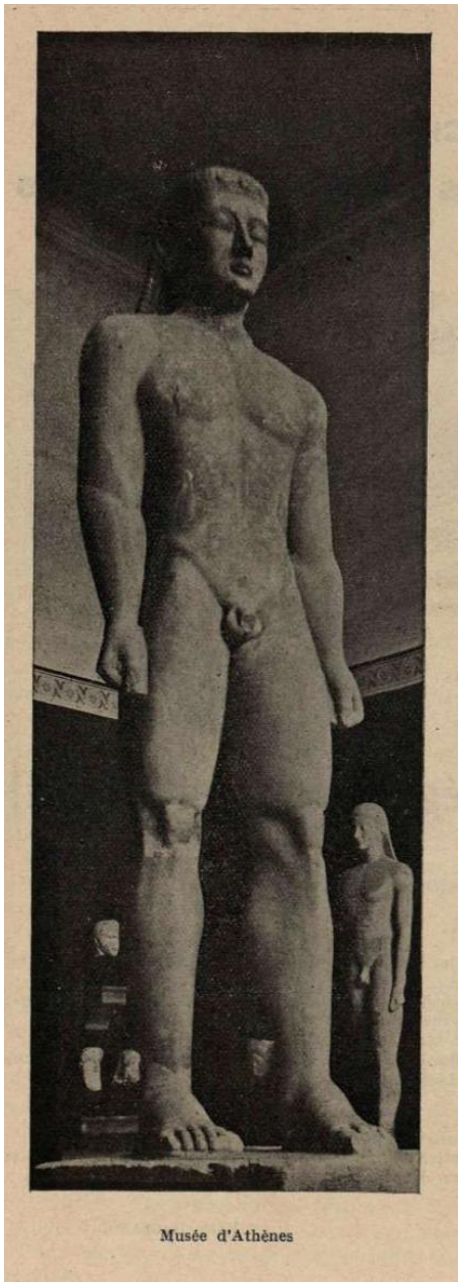
February 2023

A thesis submitted to McGill University in partial fulfillment of the requirements of the degree of Doctor of Philosophy in Architecture



And the work, maturely reflected,
skillfully and harmoniously constructed,
will appear to us in its grace and its purity.

The makers will fall at the (here too)
accelerated rhythm of the time.

FIGURE 0.1 Photograph and editorial note accompanying the Sounion Kouros (votive to heroes and demi-gods - 600BC), National Archeological Museum of Athens. Reproduced in « Coupures de journaux », *L'Esprit nouveau* n°25, n.p.

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ABSTRACT

This dissertation examines the interface between art, science, and technology within the French periodical *L'Esprit nouveau* (1920-25). Approaching the journal as an index of 19th- and early-20th-century scientific aesthetics, I consider the disciplinary polemics that informed the journal's program for a so-called *ésthetique vivante.* I ask: how did this emphasis on vitality reflect newly medicalized regimes of psychic and social hygiene? And by what metaphors were art and architecture drawn together in their service to a techno-scientifically conceived subject?

The central aim of my research is to demonstrate how concerns with energy hygiene were formative to a post-war French modernist rethinking of art and architectural practices. The journal's collaborators, I argue, take up a scientific tradition that formulates the aesthetic to intervene in the energetic linkages between the individual nervous system and the social body at large. In drawing out the socio-cultural and political valences of these new energetic paradigms, my hope is to arrive at a more nuanced vocabulary for engaging the medical preoccupations underlying our contemporary aesthetic commitments. My intended contribution is to imagine *L'Esprit nouveau* not just as an episode in French modernism but as a theoretical case study in the formation of a psychological aesthetics.

RÉSUMÉ

Cette thèse examine l'interface entre l'art, la science et la technologie dans la revue française *L'Esprit nouveau* (1920-25). En abordant la revue comme un index de l'esthétique scientifique du XIXe et du début du XXe siècle, je considère les polémiques disciplinaires qui ont nourri le programme de la revue au sujet d'une soi-disant « esthétique vivante ». Je pose la question suivante : comment cet accent mis sur la vitalité reflète-t-il les nouveaux régimes médicalisés d'hygiène psychique et sociale ? Et quelles étaient les métaphores centrales par lesquelles l'art et l'architecture étaient réunis au service d'un sujet conçu de manière techno-scientifique ?

Ma recherche a pour objectif principal de démontrer comment les préoccupations relatives à l'hygiène énergétique ont été à l'origine d'une nouvelle conception de l'art et des pratiques architecturales dans le modernisme français de l'après-guerre. Les collaborateurs de la revue reprennent, selon moi, une tradition scientifique qui formalise l'esthétique afin d'intervenir sur les liens énergétiques entre le système nerveux individuel et le corps social dans son ensemble. À travers la mise en évidence des valeurs socioculturelles et politiques de ces nouveaux paradigmes énergétiques, mon objectif est de parvenir à un vocabulaire plus nuancé pour aborder les préoccupations médicales qui sous-tendent nos engagements esthétiques contemporains. Ma contribution vise à imaginer *L'Esprit nouveau* non seulement comme un épisode du modernisme français, mais également comme une étude de cas théorique sur la formation d'une esthétique psychologique.

ACKNOWLEDGEMENTS

Everywhere but in the pages of this work are the people that have supported and guided its making.

First and foremost, I am grateful to my supervisory committee: David Theodore, whose open door and rigorous feedback have made for six wonderful years of mentorship. To his maieutic skill, I owe an only deepening interest in the questions posed by this research. To Theodora Vardouli, I owe a similarly enduring thanks for reliably incisive and challenging feedback. And to Zeynep Çelik Alexander, whose encouragement and probing questions in the early stages of this project made for lasting company while writing during the pandemic.

I was first welcomed to McGill by Martin Bressani and have since repeatedly benefited from his clarity and generosity as a scholar. I am similarly grateful to Annmarie Adams and Mary Hunter, Thomas Lamarre, Brian Massumi, Alberto Pérez-Gómez – all of whose seminars deeply informed the early development of this project. To Luciana Adoyo, I owe a particular debt of gratitude for her warmth in shepherding me through countless administrative hurdles.

The early stages of this research benefited from a fellowship at the Max Planck Institute for the History of Science. I am grateful for time spent with the astonishing clarity of Lorraine Daston, Christine Von Oertzen, and Donatella Germanese. For a memorable workshop on Architectures in Print, I am similarly thankful for timely conversations with Maarten Delbeke, Emma Letizia Jones, André Tavares, and Tom Weaver.

To friends that are colleagues and colleagues that are friends: Gretchen Bakke, without whom I likely would never have come to McGill; and Cigdem Talu, who made me happy that I did.

To Bessie Goldberg, whose psycho-editorial insight brought new winds to the final stretches of this project. And to Aaron Rotbard, paperweight to all of my favourite conversations, and Jordy Koffman, etymologist to all of my favourite words.

Finally, I am thankful to and for my parents, Mary and Les Richmond, for a lifetime of unwavering support. And to my in-laws, Mike and Lynn Belmer, as well as a dear friend, Nicky Fraser, all of whom made it possible to write a PhD with a newborn during a global pandemic. To that newborn, Olya, now a riotous toddler: for bringing joy to the everyday. And to Steph Belmer, the wiser "parental" and my closest confidante for more than twenty years: for a life of learning and for your love of life.

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PREFACE

This research responds to limits felt in conversations intersecting psychology and the arts. I spent two years in a studio-based MFA program, followed by two more years in a working residency for artists and writers. In each of these contexts, I experienced the same flattening effects of criticism – first in reducing psychology to psychoanalysis, and then in reducing psychoanalysis to its most hermeneutic Freudian dimensions. In studio visits, group critiques, and art-critical writing, psychology was often tacitly accepted to be a practice of reading symbols: a matter of *x represents y, which reflects z about its maker*. Meanwhile, outside of these spaces of formal criticism, discussions of art seemed endlessly nuanced by ways of describing, not simply what one makes (its subject matter or modes of representation) but rather how one makes it. These included material techniques, yes, but just as often, techniques about how one finds the will and stamina to keep going, to stave off exhaustion, depression, or simply boredom. I also experienced a palpable lift in comraderies that merged on logistical problems, such as what times of the day to be working, or the studio arrangements that enabled one to keep *moving, building, growing.* Though I felt openly derisive of a new managerial imperative aimed at "best practices," there was also, at least in the experience of my own work, an amateurish meddling in the sciences of self-improvement.

These observations found a foothold in a comment made by the radio-host Michael Silverblatt during his 2011 conversation with the author David Foster Wallace. What Silverblatt drew attention to in Wallace's work (his novel, *Infinite Jest*) was a core schism perceived in the psychology of contemporary experience: People return endlessly to the project of their own growth and betterment, while so too, and just as endlessly, require care for and console

themselves for their sickness and degradation.[1] A person moves, and sometimes abruptly, between regimes of progress and recovery.

This observation named for me something important about the various preoccupations I was noticing within artistic practice. Most simply, that these were ways of relating to oneself and to others that were deeply *psychologized*. By that I mean, first, that they assumed a complex and dynamic psychology: a system of impulses, affects, and ideational associations perched ambiguously on the threshold between conscious and unconscious processes. And second, that these ways of relating to oneself as an artist assumed, or even partially-imagined, a medically informed authority (or authoritative discourse) that could be a source of one's health – whether preventative or remedial.[2] I began to ask: What does it mean to experience oneself as a subject that is "psychologized" in both of these senses? And how is this aspect of experience manifested within the realm of aesthetic practice? I found these questions to have more purchase than any reductively hermeneutic evocations of Freud.

I began to imagine a speculative pre-history to these nebulous psychological codes underlying aesthetic practices. In the work of Bernard Stiegler and Peter Sloterdijk, I was introduced to a field of study aimed at describing the various "technics" or "anthropotechnics" which perpetually reconstitute the functional limits of the human.[3] From Marcel Mauss, Michel Foucault, and Jonathan Crary, I learned to consider the history of techniques as processes of subject formation.[4] Following Robert M. Brain, I began to think of artists making their own lives

[1]Michael Silverblatt, "David Foster Wallace: Infinite Jest", aired April 11, 1996, on *Bookworm*, KCRW.
[2]Though with a different point of emphasis, Natalie Loveless has described Jacques Lacan's "sujet supposé savoir" in similar terms. Natalie Loveless, *How to Make Art at the End of the World: A Manifesto for Research-Creation* (Durham: Duke University Press, 2019), 67-70.
[3] Bernard Stiegler, *Technics and Time, 1: The Fault of Epimetheus*, trans. Stephen Barker (Redwood City: Stanford University Press, 1998), 21-81; Peter Sloterdijk, *You Must Change Your Life: On Anthropotechnics*, trans. Wieland Hoban (Cambridge, UK: Pol, 2013).
[4] Marcel Mauss, "Techniques of the Body," in *Incorporations*, eds. Jonathan Crary and Sanford Kwinter (New York, NY: Zone, 1992), 455-477; Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth*

as a succession of "experimental systems."[5] In reading Anson Rabinbach, I was introduced to a post-industrial experience centrally concerned with economies of human energy and the implications of this paradigm for the development of modern art.

With regards to modernist study, I experienced a second and related flattening, this time historical rather than theoretical. In the words of the art-historian Françoise Duçros, I had accepted "a falsely familiar" narrative suggesting that after the first World War, modern art had bifurcated into two opposing tendencies: one liberatory, the other disciplinary (even proto-authoritarian). On the liberatory front was Dada and Surrealism with its various paragons of anti-conventionalism. From Tristan Tzara to Andre Breton to Georges Bataille was only a question of how far the liberatory dimension could be pushed, and the corresponding aesthetic (or anti-aesthetic) values attached to its procedures. Within the disciplinary camp was Purism, and a chorus of more programmatically inclined new-plasticians, in Dutch de Stijl, Russian Suprematism, and the Bauhaus. Walter Benjamin neatly encapsulates this bifurcation in a figure in his Arcades: "[T]o encompass both Breton and Le Corbusier – that would mean drawing the spirit of present-day France like a bow from which knowledge of the moment hits the center of the heart."[6] This statement suggests that a moment can be read as a site of tension between opposing tendencies. That beneath the noise of multiple polemics and affiliations and undercutting the elaborate taxonomies that had become a rite of passage to modernist study, there was perhaps a more basic dynamic taking shape within aesthetic experience. I found a

Century (Cambridge, Mass.: MIT Press, 1990), 5; Michel Foucault, "The Subject and Power," in *Beyond Structuralism and Hermeneutics*, ed. H. Dreyfus and P. Rabinow (Chicago: The University of Chicago Press, 1983), 208-226.

[5] Robert Michael Brain, The *Pulse of Modernism: Physiological Aesthetics in Fin-de-Siècle Europe (Seattle:* University of Washington Press, 2016), xvi.

[6] Walter Benjamin, *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin (Cambridge, Mass.: Belknap Press, 1999), 459;Detlef Martins succinctly describes this figure as expressing a desire "to bind destruction and construction - enthusiasm and rationality - into a dialectic." Detlef Mertins, "The Enticing and Threatening Face of Prehistory: Walter Benjamin and the Utopia of Glass," *Assemblage* 29 (1996): 11.

suggestive description of this dynamic in Terry Eagleton's *Ideology of the Aesthetic* (1990), which describes modern aesthetics as structurally divided between its liberatory and disciplinary aspects. Central to the conventions of modern aesthetics, Eagleton argues, is the desire to forge social consensus based on individual embodiment and sensory perception. While there are endless variations in how this embodiment is modelled (i.e., epistemologically, physiologically, sociologically, etc.) Eagleton claims that each of these models represents an imaginary schema, a "secret protype," for the ways in which we relate to one another and to ourselves.[7]

I thus began to encounter Purism as an unlikely object of study. I came across an article by Nina Rosenblatt which suggested that a straightforwardly disciplinary reading of *L'Esprit nouveau* – in its elitest, Taylorist, and at times proto-fascist orientations – was not quite representative of the sum of its commitments. This insight was supported by a more recent re-reading of *L'Esprit nouveau* by Iuliana Vocavanu, whose 2017 dissertation argued convincingly for a more catholic rendering of the journal and its contributions. I wrote a first paper on the psychoanalytic dimensions of the journal but quickly found that the psychologizing of aesthetics (if not also the aestheticization of psychology) could be more adequately addressed within the framework of 19th- and early 20th-century scientific aesthetics. I decided that a more comprehensive analysis of the journal's scientific affiliations would make for a timely case study.

[7] Terry Eagleton, *The Ideology of the Aesthetic* (Oxford, UK: Blackwell. 2010), 9.

FIGURE 0.2. *L'Esprit nouveau,* Issues n° 1-28, 1920-1925.

INTRODUCTION

From 1920 to 1925, the Paris-based journal *L'Esprit nouveau* printed 28 editions under the direction of the poet, Paul Dermée, the painter Amédée Ozenfant, and the architect Charles-Edouard Jeanneret (Le Corbusier).[8] Initially described as a « *Revue Internationale D'Esthétique* », its stated program was to "understand the spirit of the contemporary époque" and to "manifest the unified spirit that enlivens the research of the various elites within our society."[9] In bold capital letters, it proclaimed itself to be the first periodical of its kind truly consecrated to « *L'ESTHÉTIQUE VIVANTE* ».[10]

This emphasis on vitality may be unsurprising to the contemporary reader, who now trades frequently in metaphors that describe cultural experiences as *vibrant, vital, animated,* or *pulsing*. (As I write this a large billboard outside of the McGill-Schulich School of Music claims to be "BRINGING MUSIC TO LIFE!") But the ease of such expressions may also obscure what were once the stakes involved in the formation of these metaphors; our very fluency in the language of vitality may well prevent us from appreciating how art and architectural practices were once tested in their service to a healthy human body. Such, in any case, is the provocation intended by

[8] L'Esprit nouveau: revue internationale d'esthétique. Paris, Société des Editions de L'Esprit nouveau. N° 1 (1920) – 28 (1925). Reprint: New York, Da Capo Press, 1969. *Subsequent citations to the journal will be abbreviated as *EN*. Dermée ceded his directorship after only three issues, though continued as both author and collaborator in subsequent issues. On the details of his involvement, see: Iuliana Roxana Vicovanu, *L'Esprit nouveau (1920-1925) and the shaping of modernism in the France of the 1920s* (Ann Arbor, MI: UMI Dissertation Service, 2010), 7, 50-59. See also Françoise Will-Levaillant, « Norme et forme à travers l'Esprit nouveau », in *Le retour à l'ordre dans les arts plastiques et l'architecture, 1919-1925: actes du 2e colloque d'histoire de l'art contemporain, Saint-Etienne, 15-17 février 1974* (Saint-Étienne : Centre interdisciplinaire d'études et de recherche sur l'expression contemporaine, 1975), 266.

[9] [Editorial Note], *EN* n° 1, ii-v. *Note on translation*:* Unless otherwise noted, all translations are my own. Where language is particularly relevant, I include the original in the notes.

[10] Ibid., iii.

the following study: that we revisit the moment of *L'Esprit nouveau* as a salient pre-history to aesthetic codes still active in the present. Or more specifically: that we find in its convergences of art and science an index of still-lingering aspirations to make aesthetic culture the basis for a healthier and more productive life.

This dissertation explores how concerns with health and vitality were central to the collaborators of *L'Esprit nouveau*. I propose that these authors were, in different ways, trying to define cultural practices – from architecture and poetry to painting and rhythmic gymnastics – as a realm for both correcting social pathologies and testing new models of health and production. By describing the scientific affiliations in post-war French modernism, my intention is to unpack the complexities and contradictions inherent to the very notion of a "living aesthetic."

My claim is the following: that particularly relevant to the collaborators of *L'Esprit nouveau* is a scientific tradition that conceives of the aesthetic as a privileged domain by which to intervene in the energetic linkages between the individual nervous system and the social body at large. This tradition, first elaborated under the name of animal magnetism at the end of the 18th century, proliferated in public spectacles that emerged as romantic medicine from 1800-1845.[11] From the mid-19th to the early 20th century, and particularly in France, the focus of this popular science was then gradually wrested by a new class of state-sanctioned medical experts. Indeed, modern depth psychology converted the mystical, occult, or spiritist experiments in human magnetism into a system that both produced and legitimated knowledge-practices addressing the psychopathologies of the human subject.[12] These new sciences used human energy as a central

[11] An extensive history of this lineage can be found in John Tresch, *The Romantic Machine: Utopian Science and Technology after Napoleon* (Chicago: University of Chicago Press, 2012). A more concise account of the Romantic origins of psychology can also be found in Peter Sloterdijk, *Spheres*, Semiotext(e) Foreign Agents Series (Los Angeles, CA: Semiotext(e), 2011), 209–68.

[12] I derive this conception primarily from H.F. Ellenberger, *The Discovery of The Unconscious: The History and Evolution of Dynamic Psychiatry* (New York: Basic Books, 1981).

category for understanding the individual nervous system and its relationship to the surrounding social milieu.[13] At all levels – from cell biology to the urban crowd – the doctor emerged as an expert capable of describing pathologies and prescribing the appropriate interventions. Both for the individual and for the collective, these pathologies are repeatedly defined along energetic lines – as problems of excess (hysteria), scarcity (fatigue), influence (suggestibility), and contagion (hygiene).[14]

Recently, scholars Robert Michael Brain and Zeynep Çelik Alexander have shown how these new medical models were deeply integrated with the development of modern aesthetics.[15] From mid-19th-century pioneers of experimental psycho-physiology, such as Gustav Fechner (1801-1887), Hermann von Helmholtz (1821-1894), and Wilhelm Wundt (1832-1920) to fin-de-siècle authors such as Thodule Ribot (1839-1916), Alfred Binet (1857-1911), and Pierre Janet (1859-1947), scientists found in all dimensions of artistic experience, as Brain puts it, an appropriately "experimental system" to remap the basic contours of human experience.[16] From

[13] In its widest scope, the relevant topos of this science can be described as Newton's gravitational physics – the study of action at a distance – transferred to the realm of human psychology; it defined the invisible laws that govern human sociability without recourse to direct mechanical force. On these origins of Mesmerism as a popular science, see Robert Darnton, *Mesmerism and the End of the Enlightenment in France* (Cambridge, Mass.: Harvard University Press, 1968).

[14] That hysteria was conceived by Jean-Martin Charcot as a figure of "excess" is well described in Jonathan Marshall, "Nervous Dramaturgy: Pain, Performance and Excess in the Work of Dr Jean-Martin Charcot, 1862-1893," *Double Dialogues* 4 (2003), accessed Sept 17, 2022, https://www.doubledialogues.com/article/nervous-dramaturgy-pain-performance-and-excess-in-the-work-of-dr-jean-martin-charcot-1862-1893/. On other illnesses conceived as problems of "energy" see in particular Anson Rabinbach's reading of Albert Deschamps, *Les Malades de l'energie (1908)* in Anson Rabinbach, "Neurasthenia and Modernity," *Incorporations (New York: Zone Books, 1992),*178. On questions of contagion in Gustave Le Bon and Henry Conzalis, see George Teyssot, "Norm and Type, Variations on a Theme," in *Architecture and the Sciences: Exchanging Metaphors,* ed. Antoine Picon and Alessandra Ponte (New York, N.Y.: Princeton Architectural Press: 2003).

[15] Zeynep Çelik Alexander, *Kinaesthetic Knowing: Aesthetics, Epistemology, Modern Design* (Chicago: University of Chicago Press, 2017); Brain, *Pulse of Modernism.*

[16] "In many instances, early modernist artists extended the questions posed intrinsically by the experimental systems but not easily answered within the constraints of the laboratory: art was a way of exploring or recontextualizing the physiologists' questions and, sometimes, drawing out their implications for society at large." Brain, *Pulse of Modernism,* xvii-xviii.

university and clinic came a wave of books and journal articles claiming the need to rethink the obscure processes which connected the sensuous body to an affective, ideational psyche.[17]

I consider these scientific pre-histories to warrant some degree of recounting here, if only to better imagine what, for authors of the early 1920s, represented a valuable zone of exchange between the arts and sciences. How did the authors of *L'Esprit nouveau* reinvent the history of scientific aesthetics to engage the cultural politics of their present? To answer this question, I pay close attention to the group of scientific authorities called upon within each edition of the periodical.[18] These include: the Germanist Victor Basch, the first Chair of the Science of Aesthetics at the Sorbonne; Charles Henry, Director of the Laboratory for the Physiology of Sensations; homeopathic doctor René Allendy, a founding member of the Paris Psychoanalytic Society; and the philosopher and polemicist Charles Lalo. Granted a distinct authority in the journal, these experts sometimes appear serially and assume a continuity of argument within the journal's evolution.[19] Very often, they are tasked with introducing central themes and questions. And almost always, their names appear as contributors to the "*Sciences*."[20] These were, or so I would like to suggest, the *Doctors of L'Esprit nouveau*.

In putting forward this description, I am immediately confronted with the historiographic problem of assigning epistemological unities where such unities do not exist. Indeed, while the

[17] On this scientific proliferation, see Tobias Wilke, "At the Intersection of Nervous System and Soul. Observation and its Limits in Late 19th-Century Psychological Aesthetics," *Monatshefte* 105, no. 3 (2013): 443-57.
[18] This approach was inspired by a Nina Rosenblatt, who has suggested that readings of *L'Esprit nouveau* have often neglected the diversity of positions held by its contributing authors. See Nina Rosenblatt, "Empathy and Anaesthesia: On the Origins of a French Machine Aesthetic" Grey Room, no. 2 (2001): 79–97.
[19] François Will-Levaillant points out that Ozenfant saw this as a strategy for later repackaging unsold issues as a special edition book format. François Will-Levaillant, « Normes et formes à travers L'Esprit nouveau », in *La Retour a l'ordre dans les arts plastiques et l'architecture, 1919-1925* (Saint Étienne: Université de Sainte-Étienne, CIEREC, Travaux VIII, 1975) 241. See also Amédée Ozenfant, *Mémoires 1886-1962* (Paris: Seghers, 1968), 128.
[20] Vicovanu notes that Will-Levaillant was the first to emphasize the iconic title page of *L'Esprit nouveau* as issuing from a problematic around the organization of knowledge: « De Sorte que la juxtaposition des rubriques affichée sur la couverture de la revue est un symtôme du problème fundamental des relations entre les divers champs de la production ou de da connaissance: ou bien els restent juxtaposes, ou bien ils interferent, mais comment? » François Will-Levaillant, « Normes et forms », 244.

programmatic nature of *L'Esprit nouveau* has made it a convenient object of study, I do not mean to conflate its editorial aspirations with the actual embodiment of a single ideology or approach.[21] In fact, one of the most intriguing dimensions of the 1920s art journal is the ambiguous discursive space that it takes up between the unifying ambitions of some of its editors and the more dispersed, anarchic, and contingent dimensions that enter into the production of the periodical as form.[22] *L'Esprit nouveau* makes for a particularly interesting case study in this respect, since it neither achieves the controlled unanimity of other modernist journals published under the banner of Dutch *De Stijl* or Italian *Futurism*, nor does it become the open "heteroglossia" modelled by its Dadaist and Surrealist counterparts.[23] This is an ambivalence which is most often ascribed to differences amongst the journal's founding personalities: Le Corbusier and Ozenfant had just published in their *Après le Cubisme* of 1918, a manifesto for order and clarity to accompany their first exhibition of Purist paintings.[24] Ozenfant, who edited

[21] As Lorraine Daston and Peter Galison have cautioned in *Objectivity*, there are no such singular worldviews towards which we can trace back the members of a particular scientific milieu. It is rather, they claim, that each milieu is a collection of repeated efforts to develop a particular set of values and practices. "Scientific practices of objectivity were not, therefore, merely illustrations or embodiments of a metaphysical idea of self. That is, our view is not that there was, before the relevant work, an already–established, free-floating scientific self that simply found application in the practices of image-making. Instead, the broader notion of (for example) a will-based scientific self was articulated – built up, reinforced – through concrete acts, repeated thousands of times in a myriad of fields in which observers struggled to act, record, draw, trace, and photograph their way to minimize the impact of their will." Lorraine Daston and Peter Galison, *Objectivity* (Cambridge: Zone Books, 2015), 38.

[22]This has been observed as a feature of a newly emergent field of periodical study in general. See Sean Latham, and Robert Scholes, "The Rise of Periodical Studies," *PMLA* 121, no. 2 (2006): 517–31. It has also been seen as a feature of the so-called "belle epoque" of French revues, which lasted from 1880 to 1914. See Yves Chevrefils Desbiolles, *Les revues d'art à Paris, 1905-1940* (Paris, Ent'revues, 1993). For an extensive contextualization of the *L'Esprit nouveau* within this periodical history, see Vicovanu, *L'Esprit nouveau,* 24-110.

[23] My suggestion here is that the word, first popularized by M.M. Bakhtin's 1934 essay "The Dialogic Imagination," neatly encompasses the Dadaist commitment to plurality in both its social and aesthetic dimensions. Bakhtin writes: "The novel orchestrates all its themes, the totality of the world of objects and ideas depicted and expressed in it, by means of the social diversity of speech types [raznorechie = literally: "differing speech" = heteroglossia] and by the differing individual voices that flourish under such conditions. Authorial speech, the speeches of narrators, inserted genres, the speech of characters are merely those fundamental compositional units with whose help heteroglossia [raznorechie] can enter the novel; each of them permits a multiplicity of social voices and a wide variety of their links and interrelationships." Mikhail Bakhtin, *The Dialogic Imagination: Four Essays*, trans. Caryl Emerson (Austin: University of Texas Press, 1981), 263.

[24] On conflicts between the editors, see Vicovanu, *L'Esprit nouveau,* 50-67. *Après le Cubisme* takes up a dual stance relative to Cubism. On the one hand, Cubism's denial of traditional representation is praised by Ozenfant and Le Corbusier for having newly issued a distillation of visual form. Cubism, however, also fails to make good on its

the wartime journal *L'Elan,* had been particularly well apprenticed in the task of organizing disparate artists around a common "theoretical clarity" – as it was then described by the poet and critic Pierre Reverdy.[25] By contrast, the poet Paul Dermée was a notorious busy-body, amenable to multiple theoretical positions. Though he had made his own appeals for order and clarity in Reverdy's review *Nord Sud*, he was soon-after soliciting Tristan Tzara to make a home for Dada in Paris.[26] This mismatch in the founders' initial commitments has been confirmed by letters and biographies which all seem to suggest that the ousting of Paul Dermée as director, only one year into the publication, was largely attributed to differing visions for what the journal was meant to achieve.[27] "The boy got it into his head to write a Dada magazine," Ozenfant later recounted in his memoirs.[28]

Beyond these differences in personality, however, I am interested in how the ambivalences of *L'Esprit nouveau* might also be read as a feature of its affiliation with the

promises, diverting its hard-won autonomy into mere whimsy and novelty. They argue that a truer development from Cubism would join science and technology in pursuing the immutable laws of nature. A. Ozenfant, and Le Corbusier, *Après Le Cubisme* (Paris: Altamira, 1999). For Ozenfant's account of this collaboration see Françoise Ducros, "Amédée Ozenfant, 'Purist Brother,'" in *L'Esprit Nouveau : Purism in Paris, 1918-1925* (Los Angeles, Calif.: Los Angeles County Museum of Art, 2001), 75-81.

[25] In the final issue of *L'Elan*, Ozenfant's « Notes sur le cubism » offers a first articulation of purist principles. The poet Pierre Reverdy, founder the revue *Nord-Sud* (1917-1918) was a central figure for artists wanting to move beyond the sheer eclecticism of cubist experimentation. Issue n° 6 of L'Esprit nouveau included the following comment by Reverdy: "In 1916, the time had come when one could speak of esthetics. I did so in *Nord-Sud* because the time was ripe for organization, for the gathering of ideas, because fantasy was giving way to a greater need for structure, and this feeling spoke loudly enough in me that I founded a magazine to express it and push an idea into reality." Pierre Reverdy « L'Esthetique et l'esprit », *EN* n° 6, 671. On Reverdy's importance for Ozenfant in particular, see Vicovanu, *L'Esprit nouveau,* 46-50.

[26] Paul Dermée (born Camille Janssen) had won the respect of Reverdy and his circle with an essay entitled « Quand le symbolisme fut mort », published in the first issue of *Nord-Sud.* Though he continued to write for Reverdy's review, a letter from March of 1918 shows that he was meanwhile soliciting Tristan Tzara to make him co-editor of a Parisian Dadaist publication. "We shall be brothers in arms." For this correspondence and related commentary on Dermée's contentious involvement with the formation of Paris Dada, see Michel Sanouillet and Anne Sanouillet *Dada in Paris* (Cambridge, MA: MIT Press, 2009), 467.

[27] "The radical departure of the magazine from what was to be its first model, consecrated by the avant-gardes (petite revue), and its adoption of an institutional form (grande revue d'esthetique et d'art) underline at the same time the passage from a form of exchange and cosmopolitanism to an otherwise totalizing approach to the relations between the arts and human activities." Vicovanu, *L'Esprit nouveau,* 47.

[28] Ozenfant, *Memoires*, 110.

sciences. For, if at its most programmatic level, the Purist vision was to align creative practices with the study of the immutable laws of nature, this was a project that also called for experimentation from a wide variety of disciplines. In this respect, Ozenfant and Le Corbusier conceived of the journal as what Paul Valéry called a "laboratory of letters" – i.e., a discursive space which not only recorded previously held positions but produced a living document to be revised by a community of interconnected specialists.[29] From this vantage, *L'Esprit nouveau* makes for a unique artifact. It preserves, in its very form, a historic effort to use the aesthetic as the basis for a new social consensus. My interest here is to chart the various ways in which the sciences are called upon to locate this zone of consensus within the psycho-physiological density of the thinking-feeling body.[30] These efforts contain important differences, both with respect to the models of individual psychology they espouse, and in terms of the social and political horizons which they draw into view. More than the unified program it sometimes claimed to uphold, *L'Esprit nouveau* represents the *desire* for such a unity. More than a scientific milieu, it was a *fantasy* of such a milieu: a collage-work of male elites.[31]

[29]In his reception address to the Académie Française, Valéry repeatedly uses the image of the laboratory as an incubator of new ideas. "These little chapels where minds expand, these enclosures where the tone grows heated, and values inflated, serve as real laboratories for literature. . . [O]nly laboratories can provide the intense heat, the extremely rare reactions, the degree of enthusiasm without which the sciences and the arts would be relegated to an all too predictable future." Paul Valéry, *Collected Works of Paul Valéry, Volume 11: Occasions*, trans. Jackson Mathews (Princeton: Princeton University Press, 2016), 11.

[30] Here I am informed by Norbert Elias' distinction between German *kultur* and French *civilization*, and to Nina Rosenblatt's uses of Elias as a corrective to studies of French modernism considered from the vantage of "cultural studies." N.L. "Photogenic Neurasthenia: Aesthetics, Modernism and Mass Society in France, 1889-1929" (PhD diss., Columbia University, 1997) xi.

[31]Insufficiently explored by the current study are the ways in which both aesthetic and scientific subjectivities inscribe (and are inscribed by) gender. On this front, scholars such as Marina Benjamin, Robert H. Nye and Mary Hunter have developed the category of 'medical masculinities' in considering how particular values and virtues are tied to the representation of medical men. See Marina Benjamin, Science and Sensibility: Gender and Scientific Enquiry, 1780-1945 (Cambridge: B. Blackwell, 1991); Robert A. Nye, "Medicine and Science as Masculine "Fields of Honor," *Osiris* 12 (1997): 60-79; Mary Hunter, *The Face of Medicine: Visualizing Medical Masculinities in late Nineteenth-Century Paris* (Manchester: Manchester University Press, 2015).

Method of Analysis

At its most concrete level of analysis, my approach to the journal is to see it as a historical artifact which registers significant unities and divisions within the historical moment it was produced. On the side of its unities, I engage the rhetorical strategies used when presenting the journal as the mouthpiece of a modern spirit, organized around a common end.[32] Following Benedict Anderson's considerations of newsprint as a formation of imagined communities, my reading extends the work of other historians – Susan Ball, Stanislav von Moos, Beatriz Colomina, Mary McLeod – who consider how the editors used the journal to circulate a distinctly hierarchical, managerial, and nationalist vision for how artist and architect operate within a newly industrialized world.[33]

More than this, however, my aim is to challenge the cohesiveness of official Purist doctrine and to interpret the subtle divisions running throughout the journal and its sources. In so doing, I hope to continue a method of analysis first articulated by François Levaillant in her seminal essay « Normes et Formes à travers *L'Esprit nouveau* ». There Levaillant objects to an art historical tendency which has accepted too readily (and preserved too neatly) the taxonomies suggested by its most influential figures. In this case, the Purism of Ozenfant and Le Corbusier

[32] Here I am particularly indebted to the advice of Donatella Germanese, whose approach to the German periodical *Pan* considers the formation of each issue as a cohesive work. Donatella Germanese, *Pan (1910-1915*): *Schriftsteller Im Kontext Einer Zeitschrift, Epistemata* (Würzburg: Königshausen & Neumann, 2000).

[33]Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (London: Verso, 1983). This thought was also of its time. Writing at the fin de siècle, both Gustav Le Bon and Gabriel Tarde described how newspapers enabled a more "abstract" dimension of public life. See Vicovanu, 34; Susan Ball, *Ozenfant and Purism. The Evolution of a Style 1915-1930 (Ann Harbor: UMI Research Press, 1981); Stanislaus von Moos, L'Esprit nouveau* : *Le Corbusier et l'industrie 1920-1925,* (Berlin: Museum für Gestaltung Zurich et Wilhelm Ernst & Sohn Verlag für Architektur und technische Wissenschaften Berlin, 1987); Beatriz Colomina, *Privacy and Publicity : Modern Architecture As Mass Media* (Cambridge, Mass.: MIT Press, 1994); Mary McLeod, "'Architecture or Revolution': Taylorism, Technocracy, and Social Change," *Art Journal* 43, no. 2 (1983): 132–47.

has come to represent an ideological shorthand for the journal and its affiliated authors. By contrast, Levaillant's approach de-stressed Purism as a program or "ideology" and searched instead for an "ideological configuration" of key concepts (to which Purism, Levaillant writes, was only "superficially related"): "order, construction, economy, organism and organization, instinct and conscience, structure, system, language, sensation, emotion."[34] I extend Lavaillant's reading of these configurations by bringing the scientific dimensions of the journal to the fore – and, in particular, accounting for what I see as an equally pervasive (though thus far neglected) set of preoccupations with energy, vitality, and force.

In addition to building on Levaillant's work, my approach is also informed by Iuliana Vicovanu's detailed rendering of the ambivalences accompanying the Purist program. Vicovanu writes: "Indeed, not only is the magazine crossed by heterogeneous logics, specific to the various domains it deals with, but the very epoch in which it is born is situated, from the historical, epistemic and aesthetic point of view, at the crossroads of several ideological configurations that overlap like tectonic plates."[35] For Vicovanu, whose genealogy of the "new spirit" features the reception of Walt Whitman by the late 19th-century writings of the French author Leon Bazalgette, the fault lines running throughout the journal pertain to the complex ethical imperatives implicated in a new "art of living."[36] In conversation with Vicovanu, my hope is to draw out an alternative configuration of thoughts and anxieties concerning the "art of living,"

[34] "We believe that purism is only a word to which the key concepts mentioned above are superficially linked, which must become the real objects of analysis." Will-Levaillant, « Normes et formes », 245.
[35] « En effet, non seulement la revue est traversée par des logiques heterogeneous, specifiques aux divers domaines qu'elle aborde, mais l'epoque meme où elle voit le jour se situe, du'n point de vue historique, epistemique et esthetique, au crosement de plusieurs configurations idéologiques qui se chevauchent comme des plaques tectoniques. » Vicovanu, *L'Esprit nouveau,*10.
[36]Léon Bazalgette (1873-1928) was a French literary critic and translator, now best known for introducing Walt Whitman to readers of French. Vicovanu's reading traces the notion of the "new spirit" to Bazalgette's 1898 « L'Esprit nouveau et la vie artistique, sociale et religieuse. »

suggesting a complimentary genealogy of the journal which runs through 19th-and early 20th-century medicine.

At its second level of analysis, my study engages a range of scholarship addressing the scientific valences of aesthetic modernism. My aim is to contribute to a body of literature that considers art and science not as parallel fields drawing from a single cultural matrix but, rather, as a relationship of transfer and exchange.[37] I want to unsettle any fixed opposition between disciplines, highlighting the range of objects, concepts, and practices which renegotiate disciplinary boundaries. On this front, scholars such as Jonathan Crary and Sanford Kwinter have been instructive in asking whether narratives of *influence* are not better replaced by notions of *transversal* – whereby different actors "come into relations of mutual resonance and exchange but always for internal reasons."[38] For Crary in particular, the importance of this model has been to "uproot artworks from vertical lineages in art history" and to thereby "think the simultaneous but autonomous coexistence of disparate cultural artifacts."[39] The challenge, in other words, is to engage with phenomena that are meaningful across disciplines, while also allowing for important gaps in their use and understanding.[40]

In conversation with this literature, I read *L'Esprit nouveau* as an index of new techno-scientific imperatives which arose in the second half of the 19th century. My approach is *indexical* in the sense that I look to texts, images, and the organization of a periodical for

[37]See in particular: Caroline Jones, Peter Galison, and Ame Slaton, *Picturing Science, Producing Art* (New York: Routledge, 1998); Lorraine Daston, *Things That Talk: Object Lessons from Art and Science* (New York: Zone Books; 2004); Antoine Picon and Alessandra Ponte, *Architecture and the Sciences : Exchanging Metaphors* (New York, N.Y.: Princeton Architectural Press : 2003).
[38] This citation from Deleuze's *Negotiations* is found in Jonathan Crary, *Suspensions of Perception: Attention, Spectacle, and Modern Culture* (Cambridge, Mass.: MIT Press, 1999), 9.
[39] Ibid.
[40] A good example of how misunderstandings between artists and scientists can be highly productive can be found in Linda Dalrymple Henderson, *The Fourth Dimension and Non-Euclidean Geometry in Modern Art*, Revised edition., Leonardo (London, England: The MIT Press, 2013).

evidence of pressures exerted by new technical and managerial systems of social organization and mass urbanization.[41] I ask: how does the journal relay an inheritance of concerns about how the individual adapts to these new conditions?

As we shall see, the journal's authors are relentless in describing the axes of a future aesthetic that would operate by way of its cardinal virtues – *synthesis, experimentation, and construction*. My interest is to situate this program historically and to see how the formulation of these principles, including an arsenal of affiliated concepts such as rhythm, lyricism, harmony, etc., are informed by the pre-occupations of 19th-century energy science. Moreover, while experiences of artworks are central to many of the journal's authors, my interest is to show the degree to which these new aesthetic disciplines extend far beyond the field of optics. By addressing the aesthetic as a layered accumulation of subject-forming techniques, I hope to challenge a conventional art historical reduction of the journal either to its articulation of a *machine aesthetics* or to the problem of a *Purist optics*.[42] As we shall see, when the artist-critic Roger Bissière describes the neo-classical effects of a work by Georges Seurat, it is the overall fixity and concentration of the subject that he values. And while this experience may be enabled by a visual field, my hope is to track a much deeper and more comprehensive set of bodily reforms.

[41] The notion of the index is one of the basic semiotic categories introduced by Charles Sanders Peirce. While sometimes used by art historians to refer to a mode of signification derived from a direct physical imprinting of an object (Rosalind Krauss, 'Notes on the Index', in *The Originality of the Avant–Garde and Other Modernist Myths* (Cambridge, MA: MIT Press, 1985), 196–219.), the term has also been expanded within the field of linguistic pragmatics to address less directly referential, more metapragmatic, modes of signification (including class, gender, affect, etc. See Michael Silverstein, "Indexical Order and the dialectics of Sociolinguistic Life" *Language and Communication* 23 no. 3 (2003): 193–229. It is in this latter sense that I use the term to describe the index as a sign or measure of a complex set of medical values, preoccupations and anxieties informing discussions of energy and health as it manifests within the arts.

[42] This term originates in the *Machine-Age Exposition* (1927), organized by Jane Heap and the Little Review Gallery, followed by the *Machine Art* exhibition (1929) organized by the Museum of Modern Art.

At its third and most abstract level of analysis, the aim of this dissertation will be to revisit *L'Esprit nouveau* not simply as an episode in French modernism but also as a theoretical case study in the formation of *aesthetic subjects*. In this respect, I argue for the continued relevance of a critical hypothesis, first elaborated by Terry Eagleton, which reads the history of 19th- and 20th-century aesthetics as the cumulative entanglement of two contradictory sets of expectations: an impulse to use the body to liberate new pathways of individual and collective experience and an effort to direct these same pathways into ever more regimented modes of discipline and production.[43] I am interested in how these antagonisms, so formative to 19th-century scientific aesthetics, are given an important reprisal in the pages of *L'Esprit nouveau.*

By defining the various intellectual histories that meet in *L'Esprit nouveau*, I propose these lineages as also relevant to disciplinary codes still active in the present. In these largely forgotten convergences of art and science, I suggest that we might find a sourcebook for a wide range of lingering aspirations to make aesthetic culture the basis for a healthier and more productive life. Both individually and socially conceived, *L'Esprit nouveau* marks a dubious high-point in this effort – fraught with strains of nationalist chauvinisms of every kind. But in its founding principles – synthesis, experimentation, construction – it also contained valuable premonitions about how aesthetic culture would operate within systems of mass media and large-scale industrial capitalism. Again, while these aspirations are now marked by elitist and authoritarian shadows, it seems incumbent upon the current moment to develop a more nuanced critical vocabulary for thinking about how the aesthetic has been defined through a profoundly medicalized conception of the human body. My hope is to clarify the system of metaphors that

[43] Eagleton, *The Ideology of the Aesthetic*, 1-12.

helped to produce this conception and, in so doing, to gesture towards a more subtle negotiation of these terms within the present.

Contribution to Original Knowledge

The primary aim of my research is to create an interpretive distance between the myriad scientific aspirations expressed in *L'Esprit nouveau,* and its Purist editorial directives. Under the sign of the latter, I suggest, we have been led to imagine a moment in which the machine emerges as the symbol of a modern international style. From the whitewashing of architectural surfaces to the production of unadorned and smoothly polished décor, several generations of scholars have now reckoned with the material histories embedded within a so-called French machine aesthetic.[44] While I hold nothing against these object-based histories, and make no historiographic claims against them, my feeling has been that they have somehow eclipsed a layer of subjective *technics* that was developed under the banner of a scientific aesthetics.[45] This thesis thus advances an original reading of the journal as a collection of efforts to synthesize 19th- and early 20th-century scientific traditions and to articulate their consequences with the formation of aesthetic subjectivity. Unique to this study is its comprehensive analysis of the journal's role within the discourse of modern psychology, including the various social visions it helped to

[44] Mary McLeod, "Undressing Architecture: Fashion, Gender, and Modernity," in Deborah Fausch et al., Architecture: In Fashion (Princeton: Princeton Architectural Press, 1994), 38-123; Mark Wigley, *White Walls, Designer Dresses: The Fashioning of Modern Architecture* (Cambridge, Mass.: MIT Press, 1995).

[45] The term "technics" was first used by Lewis Mumford, though I use it here in the sense developed by Bernard Stiegler. For Stiegler, the sphere of technics is not just a question of tools put towards concrete ends, but rather, includes the cultural development of techniques by which the human extends the scope of its physical and cognitive capacities. In this sense, it is distinctly at odds with the Heideggarian critique of technology and assumes a category which encompasses both what Foucault theorized as "techniques of the self," or what Marcel Mauss understood as "techniques of the body." While Peter Sloterdijk's concept of "anthropo-technics" is similarly compelling, I am more inclined towards the politics of "individuation" following from Stiegler's analysis. See in particular Bernard Stiegler, *Technics and Time, 1: The Fault of Epimetheus*, trans. Stephen Barker (Redwood City: Stanford University Press, 1998), 21-81.

articulate. Above all, it is hoped that this study will contribute to renewed consideration of the psychological technics underpinning the development of modern aesthetics.

Organization of Work

This dissertation has five chapters – each of which is organized around a central theme: *Orthopedics, Synthesis, Construction, Rhythm, Lyricism*. Each theme represents a category of affiliated concepts: a grouping of adjacent (and sometimes conflicting) efforts to traverse between the arts and sciences. For each theme, I develop my argument from a distinct field of evidence. Apart from Chapter Two, which is based in theoretical texts, each chapter consciously takes up different forms of aesthetic experience – i.e., including design, painting, photography, poetry, etc. – using each as a different point of entry. My intention here is to allow for different forms of evidence, while presenting the journal's scientific affiliations within a spectrum of physiological, psychological, and sociological aspects.

The first chapter is focused on design and intended as an introduction. I revisit Le Corbusier's orthopedic principles as a way of presenting a more generalized set of concerns with energy hygiene. By analyzing how specific objects of design reflect medicalized preoccupations, I demonstrate how Le Corbusier conceived of the decorative arts as managing a quantitative, energetic dimension of human experience: staving off crises and mitigating the traumas of a modern experience characterized by psychological overload. From the promise of using design to restore body and mind, I deduce a normative psychology consistent with the therapeutic regimes advanced by the psychologist Pierre Janet.

In the second chapter, I expand beyond Le Corbusier's orthopedics, situating the journal within the history of psychological aesthetics. I introduce the notion of synthesis as a central

category for how processes of making and perceiving art are reimagined within new scientific and philosophical models of human psychology. I consider three authors whose contributions present a variation on this theme: the professor of Germanistics and philosophy Victor Basch, the social philosopher Charles Lalo, and the psychoanalyst and homeopathic doctor René Allendy.

The third chapter grounds the philosophical debates of Chapter Two within the journal's depictions of creative practice as a mode of *construction*. I provide a conceptual overview of the various ways construction is used in the journal. I then focus on the subject form « le constructeur » as a way of introducing the exemplary status of the painter Georges Seurat. I propose that we understand Seurat (amongst other exemplary constructors) as a new variation of the romantic genius: a figure of the artist that doubles as a normative standard of health and hygiene. I explore how this exemplary status is described in the criticism of Roger Bissière and supported by the psycho-physiological research of Charles Henry.

In the fourth chapter, I consider the journal's affiliations with the eurythmic educator Jacques Dalcroze, exploring how the science of rhythm was articulated within various physiological, psychological, and sociological registers. Focusing on a set of photographs taken by the Swiss photographer Frédéric Boissonnas, I consider how images of both architecture and rhythmic gymnastics contribute to new theorizations of the bodily unconscious. By situating Boissonnas amongst the fin-de-siècle scientists with whom he collaborated, I suggest that these images index new and scientifically-informed conceptions of aesthetic "force."

In the fifth and final chapter, I turn to questions of language and lyricism. Revisiting the 19th-century notion of *technaesthetics*, I suggest that the journal's authors shared a renewed interest in how poetic technique directly effects the psychology of its reader. I describe a historical disjunction between two technaesthetic visions of lyricism: one which imposes on its

reader a static intuition and one which agitates its reader into a field of dynamic and polymorphous associations. I connect the aims of each of these models to questions posed within the field of experimental psychology and to societal questions around energy hygiene.

In the conclusion, I briefly encapsulate the most trenchant similarities and differences encountered over the course of these five chapters. I identify several fault lines running throughout the journal and its stated affiliations within the sciences. I offer a rendering of *L'Esprit nouveau* as informed by its medicalized preoccupations, while drawing out what I see as the cultural-political implications of this legacy for the contemporary moment.

Literature Review

The following review is organized in three sections. The first section, *Aesthetic Subjects,* outlines the sources most relevant in framing the critical orientations of my research. The second section, *Scientific Aesthetics,* offers an overview of relevant scholarship addressing the interface between art, science, and technology. The third section, *Art and Architectural Modernism,* presents the scholarship drawn upon to situate *L'Esprit nouveau* amongst the post-war avant-gardes.

Aesthetic Subjects

How were new subjectivities anticipated by the development of a machine aesthetics? This was a question posed by Reyner Banham's study, *Theory and Design in the First Machine Age* (1960).[46] The work was formative in its efforts to parse the conceptual linkages most active

[46] Reyner Banham, *Theory and Design in the First Machine Age*, (London: Architectural Press, 1960).

within the formation of early 20th-century modernism. In his study of Le Corbusier and *L'Esprit nouveau,* Banham proposes an inherent contradiction within the formation of a Purist optic. "We are faced," he writes, "with an ambiguity, this time amounting to a contradiction. . . between two concepts of order, between the supposedly progressive and changeable nature of technology and supposedly eternal and immutable nature of aesthetics."[47] The latter pole is signaled by Le Corbusier's purported espousal of a science, which described aesthetic experience through an unchanging set of universal norms. Faced with this contradiction, Banham suggests that the radicality of Purist design was advanced *despite* the conservatism of its theory. Moreover, he argues, it was precisely the ability to justify the new with the archaic, the revolutionary with the familiar, that secured the widespread influence of Le Corbusier's writings from this period.

Since Banham, however, other readings of this moment have argued for a greater level of consistency between Purist design and the anachronism of its theory.[48] In "Empathy and Anaesthesia: On the Origins of a French Machine Aesthetic" (2001), Nina Rosenblatt asks whether "the very 'oldness' of an academic aesthetics was the condition for, rather than an obstacle to, the materialization of a style based on construction and industrial techniques."[49] Additionally, Rosenblatt proposes that Banham, by aligning Purist doctrine with a static and universalized subject, does so at the expense of some of its most complex and interesting resources. She draws attention to a lineage of sociological thinking that plays a significant role within the pages of the *L'Esprit nouveau* – including Victor Basch and Charles Lalo, and their academic predecessors, Émile Durkheim, Paul Souriau, Gabriel Séailles, and Jean Marie Guyau.

[47]Banham, 259.
[48]For instance, Karri Jormakka reads within Le Corbusier's writings from the 1920s the expression of an authoritarian character that is equally apparent within his design practice. Kari. Jormakka, *Eyes That Do Not See: Perspectives on Functionalist Architectural Theory*, (Weimar: Verlag Bauhaus-Universität, 2011).
[49] Rosenblatt, "Empathy and Anaesthesia," 81.

The provocation implied by this analysis is not to negate the conservative elements within *L'Esprit nouveau* but rather to show how they were advanced with a much more complex and often contradictory range of aesthetic ideals and political orientations.

In pursuing these historical nuances, I am motivated by a critical literature that sees aesthetics as central to the formation of modernist subjects. These terms are derived from Terry Eagleton's *Ideology of the Aesthetic* (1993), which traces the rise of aesthetic theory from the 18th-century decline of feudal guilds to the emergence of modern art as a sphere of autonomous production.[50] Beginning with Baumgarten in the 18th century, Eagleton stresses that, as a "discourse of the body," aesthetics emerged in response to a crisis of moral codes. With the political revolutions of the 18th century, it was not just the absolute law of the monarch that was questioned but so too the level of cognitive abstraction solicited as the faculty of social consensus. Eagleton argues that, more than simply a discourse on art, the field of aesthetics emerged as the promise of a new corporeal basis for social cohesion.[51] In my reading of *L'Esprit nouveau*, I am interested in how a scientific aesthetics reformulates this relationship between the individual and the collective. I ask: How does the journal negotiate between these liberatory and disciplinary dimensions of the aesthetic domain? And what are the socio-political ambitions assumed within the fantasy of a scientific aesthetics?

While responding to these questions, I engage a lineage of Foucauldian analysis, which traces the rearticulation of the aesthetic subject under the aegis of 19th-century medicine. My

[50] Terry Eagleton, *The Ideology of the Aesthetic*.

[51] Immanuel Kant represents the key transition within this narrative – since he both recognizes the limitations of abstract reason, while still characterizing the new corporeal aesthetic in terms amenable to the monarchic imagination. It is through Kant's influence that individual and embodied judgements of taste are systematically entrenched as new modes of universal reason. These terms, revisited countlessly in modern aesthetic theory, are no less relevant to the contributors of *L'Esprit nouveau*. From the very opening pages of the journal, Victor Basch laments Kant's insistence on the faculty of judgment at the expense of the emotional-corporeal basis of true aesthetic solidarity.

basic orientations for thinking about the relationship between aesthetics and medicine are provided by Georges Canguilhem's *On the Normal and the Pathological* (1966).[52] The polemics of *L'Esprit nouveau* are repeatedly developed through disjunctions between the healthy and the sick. At the same time, these norms are by no means static, and part of my interest is to understand how the disciplinary polemics internal to art and architecture are formed in exchange with scientific discourse. For instance, in her *Genius in France: An Idea and its Uses* (2014), Ann Jefferson describes how during the late 19th and early 20th centuries, the notion of genius fluctuates across both sides of the normal/pathological divide.[53] At stake here are unsettled questions about the status of the unconscious, and the artist's capacity to manifest a newly theorized domain of involuntary activity. To what degree are these processes conceived as marks of illness, comparable to hysteria? Or to what degree are they a healthy and controllable release of human energy? This is an open question for fin-de-siècle psychologists, and one that I suggest has important reverberations for the authors of *L'Esprit nouveau.*

In further developing this relationship between aesthetics and medicine, I also explore the valorization of *unity* as it relates to both the individual subject and the work of art. The authors of *L'Esprit nouveau* repeatedly praise artists and architects for their capacity to unify a work. Indeed, this is consistent with their espousal of "synthesis" as one of the cornerstones of the new aesthetics. By considering how this aesthetic criterion is transversally related to the development of modern psychology, I engage Jan Goldstein's work on the history of French psychology. In "The Advent of Psychological Modernism in France*"* (1994), Goldstein demonstrates how, for mid-19th-century Christian republicans such as Victor Cousins and Théodore Jouffroy, the unity of the subject amounted to an orthodoxy upheld by medical, religious, and political institutions

[52] Georges Canguilhem, *The Normal and the Pathological* (New York: Zone Books, 1991).
[53] Jefferson, *Genius in France: An Idea and Its Uses* (Princeton, N.J.: Princeton University Press, 2015).

alike.[54] Goldstein describes how the subject's pathological dispersion is later normalized by experimental and comparative psychologists of the late 19th century. In navigating this expansive history, I rely upon Henri Ellenberger's *The Discovery of the Unconscious* (1981). When following its trajectories within France, I look primarily to the work of Jacqueline Carroy (2007) and Elisabeth Roudinesco (1986).[55]

My thesis pursues how subjectivity is defined according to the logic of a dynamic energy economy. In this regard, Anson Rabinbach's *The Human Motor* (1992) provides the essential outline for how the culture of fin-de-siècle Europe developed an expansive vocabulary for thinking the human as a crisis of energy and production.[56] Rabinbach suggests that these were not just diagnoses elaborated by a small group of scientific elites – but, rather, pervasive concepts under which a population became medically literate in responding to spectacles of hysteria and more commonplace crises of fatigue, alcoholism, impotence, and war. Within this context, the human psyche becomes a central mediator between the body, its nervous system, and the social order at large. The authority of the psychologist is thus both medical and technical, combining the clinician with the engineer; at stake is the capacity to flip all the right switches and to release the appropriate amount of energy for productive work. A similar logic appears in François Guéry and Didier Deleule's *Productive Body* (1972), a work which describes how psychological reasoning becomes the central discipline for capitalist subjectivity.[57] By reading

[54] Jan Goldstein, "The Advent of Psychological Modernism in France:An Alternative Narrative" in Modernist Impulses in the Human Sciences, 1870-1930, ed. Dorothy Ross, (Baltimore: Johns Hopkins University Press, 1994).
[55]Jacqueline. Carroy, *Hypnose, Suggestion et Psychologie: L'invention de Sujets* (Paris: PUF, 1991); Jacqueline Carroy, "The Post-Revolutionary Self: Politics and Psyche in France 1750-1850," *French Studies* 61, no. 4 (2007): 519–20; Elisabeth Roudinesco, *La Bataille De Cent Ans: Histoire De La Psychanalyse En France* (Paris: Seuil, 1986). Ellenberger, *The Discovery of The Unconscious: The History and Evolution Of Dynamic Psychiatry*.
[56]Anson Rabinbach, The Human Motor: Energy, Fatigue, and Origins of Modernity, (Berkeley: University of California Press, 1992).
[57] François Guéry and Didier Deleule, *The Productive Body* (UK: Zero Books, 2014).

this work alongside Rabinbach's histories of the European science of work, I am interested in pursuing the role of psychology in defining the cultural politics of the post-war period.

Finally, my interest in aesthetic subjectivity is inspired, both methodologically and substantially, by recent examples of transdisciplinary case study.[58] Andrei Pop's *Forest of Symbols* (2019) suggests the long 19th century as a crisis of meaning which newly problematizes the communicative limits of the subject.[59] By looking to symbolism's neglected logical structures, Pop provides culture as evidence of the philosophical preoccupations informing artistic exchanges with the sciences. Similarly instructive is Spyros Papapetros' *On the Animation of the Inorganic* (2012), which offers a layered rendering of modernism's slippage between vital subjects and inorganic matter. This work has been exemplary for me in suggesting how cultural history might attend to the signals of a multivalent subject.

Scientific Aesthetics

My thesis engages a field of literature at the interface between art, technology, and science. Common to this field is a historiographic problem, a question about how to characterize a zone of confluence, conflict, and exchange between multiple fields of knowledge and practice. Should we speak of ideas and images that *traffic* between multiple disciplines or of a *cultural matrix* that is shared between experts in different fields? How should one historicize the *web of connections* linking artists to scientists or define their *common probing* of a similar set of problems?

[58] A relevant collection is *Aesthetic Subjects*, ed. Pamela R. Matthews and David Bruce McWhirter (Minneapolis: University of Minnesota Press, 2003).
[59] Observing a similar crisis of meaning is Tobias Wilke, "At the Intersection of Nervous System and Soul," 443-57.

These methodologies now have their own histories, each situated within its own negotiation of disciplinary limits. In their introduction to *Picturing Science Producing Art (*1998), Jones and Galison describe how late 20th-century Anglo-American scholars abandoned the European *wissenschaftlich* tendency to treat art and science as related activities of the human mind.[60] They argue that the separation of the university into autonomous spheres of activity established the conditions described by C.P. Snow's "Two Cultures*"*(1959) a work which secured the reification of art and science as two points in a binary exchange. Even scholars wanting to bridge this gap, whether through a sociology of practices (Kuhn, 1969) or a more structuralist epistemology (Gombrich, 1972), further entrenched the separation of disciplines.[61] This resulted in a genre of homology-writing in which art and science were conceived as parallel disciplines, each developing a similar set of problems. For instance, S. Kern's *The Culture of Time and Space* (1983) describes "patterns of coherence" between the artistic and scientific concepts developed from 1880 to World War I, while Louis Sass' *Madness and Modernism* (1992) pursues "eerie parallels" between Modern art and the experiences of schizophrenia as diagnosed during the same period.[62] Even Martin Kemp's *Seen/Unseen: Art and Science and Intuition from Leonardo the Hubble Telescope* (2006) uses recurring imagery in art and science to demonstrate what he calls " shared structural intuitions" about the natural world.[63] These

[60] Caroline A. Jones, Peter Galison, and Amy E. Slaton, *Picturing Science, Producing Art* (New York: Routledge, 1998); Lorraine Daston, *Things That Talk: Object Lessons from Art and Science* (New York: Zone Books, 2004); Antoine Picon and Alessandra Ponte, *Architecture and the Sciences: Exchanging Metaphors* (New York: Princeton Architectural Press, 2003).
[61] Snow CP, "Two Cultures.," *Science* 130, no. 3373 (1959): 419; Thomas S. Kuhn, "The New Reality in Art and Science" *Comparative Studies in Society and History* 11, no. 4 (1969): 403–12; E. H. Gombrich, *Art, Perception and Reality*, (Baltimore ; The Johns Hopkins University Press, 1972).
[62] S. Kern, *The Culture of Time and Space, 1880-1918* (Cambridge Mass.: Harvard University Press, 2003); Louis Arnorsson. Sass, *Madness and Modernism: Insanity in the Light of Modern Art, Literature, and Thought* (New York, NY: Basic Books, 1992).
[63] Martin. Kemp, *Seen/Unseen: Art, Science, and Intuition from Leonardo to the Hubble Telescope* (Oxford: Oxford University Press, 2006).

works do not seek to define lines of causality between disciplines but rather to point to meaningful similarities between two broadly defined fields of activity. This approach was criticized by a subsequent generation of scholars who considered such accounts to be largely insensitive to the historical mediations linking disparate fields of knowledge.[64]

Constituting a more transdisciplinary method of analysis is a body of scholarship that considers the relationship between art and science as a site of transfer and exchange. While this literature finds important antecedents in figures such as Michel Serres, Pierre Francastel, and Gaston Bachelard, its emergence as a field of study is suggested by substantial collections on the theme: *Picturing Science, Producing Art* (1998), *Architecture and the Sciences: Exchanging Metaphors* (2003), and *Things that Talk: Object Lessons from Art and Science (2004).*[65] These works share a common interest in defining how art and science are mutually defined as regimes of knowledge. They seek to unsettle any fixed opposition between fields, highlighting the range of objects, concepts, and practices by which disciplinary boundaries are renegotiated within the cultures they inhabit. Jonathan Crary and Sanford Kwinter's edited collection, *Incorporations* (1992), was extensive in its Foucauldian analysis of the various ways in which the body, inscribed by power, is constantly adapting itself to new systems of desire, belief, and control.[66] "Our topic is the problem of life itself," the editors write, "this volume addresses the

[64] Michael Micale offers a helpful overview of this critical turn. Mark S. Micale, *The Mind of Modernism: Medicine, Psychology, and the Cultural Arts in Europe and America, 1880-1940*, (Stanford: Stanford University Press, 2004), 1-21.

[65] Jones, Galison, and Slaton, *Picturing Science, Producing Art*; Lorraine Daston, *Things That Talk;* Picon and Ponte, *Architecture and the Sciences*.

[66] A more recent example of this Foucauldian analysis is presented in Sun Young Park, *Ideals of the Body: Architecture, Urbanism, and* Hygiene in Postrevolutionary Paris (Pittsburgh, Pa.: University of Pittsburgh Press, 2018). Park considers how 19th-century anxieties regarding health and hygiene were inseparable from the formulation of new bodily ideals in France. Her work extends Paul Rabinow's study of the disciplinary character of French urban design, while placing new stress upon the study of leisure. Particularly important for my own work is Park's emphasis on the way in which new subjectivities are enabled by virtually held ideals. Paul. Rabinow, *French Modern Norms and Forms of the Social Environment* (Chicago: University of Chicago Press, 2014).

forces – aesthetic, technical, political, sexual – with which things combine in order to form novel aggregates of pattern and behaviour."[67] This collection serves to dislodge works of artistic and literary modernism from their disciplinary histories and to see how these works operate as an index of technological and scientific directives.[68] The same could be said for Crary's own works, *Techniques of the Observer* (1990) and *Suspensions of Perception* (2001), which describe the rise of disciplinary codes that pathologize distraction while valorizing the subject's capacity for focused concentration.[69] Tim Armstrong's *Modernism, Technology, and the Body* (1998) proposes that a similar dynamic can be conceived through processes of fragmentation and augmentation that are synonymous with the logic of capitalist modernity.[70]

My research considers how ideas about the human psyche traffic between the arts and sciences. I am interested in how and why these exchanges flourished during the late 19th and early 20th century. I pose this question while engaging existing scholarship organized around the category of *psychological modernism*. A first and important area of research in this field

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[67] Crary and Kwinter, *Incorporations*, 1992, 13.

[68]Though indirectly, my research relies upon scholarship which sees the body as a site of new technological imperatives-in the second half of the 19th century. While these imperatives are often described according to new configurations between humans and machines, there are important disagreements about how this relationship is to be interpreted. Friedrich Kittler's *Discourse Networks 1800/1900* (1990) and *Gramophone, Film, Typewriter* (1999) describe the availability of new technical media (including films, photographs, and typewritten pages) and their circulation within new institutional networks of academic and literary production. According to Kittler, technological advancements define the historical conditions in which artistic and literary modernism emerged. Though instructive in the conditions he describes, Kittler has been criticized for suggesting a one-directional and thus overly deterministic conception of technology. One important alternative has been to question the various practices by which the human body is conceived *as* a machine. This distinction is neatly summarized in Bruce Mazlish's now seminal *The Fourth Discontinuity* (1993), which defined how the human body – at one point distinguished from the machine in ways analogous to the pre-Copernican Cosmos, the pre-Darwinian animal world, and the pre-Freudian unconscious – is reimagined under the same principles as the machines and tools of its creation. Friedrich A. Kittler, Geoffrey Winthrop-Young, and Michael Wutz, *Gramophone, Film, Typewriter*, Writing Science (Stanford, Calif.: Stanford University Press, 1999); Friedrich A. Kittler, *Discourse Networks 1800/1900* (Stanford, Calif.: Stanford University Press, 1990); Bruce Mazlish, *The Fourth Discontinuity: The Co-Evolution of Humans and Machines* (New Haven: Yale University Press, 1993).

[69] While the experience of artworks represents a central figure for these new disciplines, Crary draws upon the history of scientific aesthetics to show how these new disciplines extend well beyond the field of optics. Crary, *Suspensions of Perception*.

[70] Tim Armstrong, *Modernism, Technology, and the Body: A Cultural Study*, (Cambridge: Cambridge University Press, 1998).

concerns German theories of empathy (Einfühlung), made available to English speaking scholars through the Getty publication, *Empathy, Form, Space: Problems in German Aesthetics 1873-1893* (1994).[71] A particular model for me within this lineage is Juliet Koss' *Modernism after Wagner*, which tracks aesthetic modernism as a dynamics of empathy and estrangement co-created between producer and spectator.[72] Within the French tradition, of particular importance for me has been Estelle Thibault's tracking of proto-psychological concepts – including sympathy but also projection and expression – as they are tested within emerging science of beauty developed by Charles Blanc, Cesar Daly, Theodore Jouffroy, and Humbert de Superville.[73] From this same history, I am also oriented towards the way formal value systems are elaborated on the basis of analogies between human expression and simple geometry – later to have important echoes in the pages of *L'Esprit nouveau*. The edited collection, *The Mind of Modernism* (2004) also offers helpful examples of how to, as the editor Marc Micale puts it, reflect on the "culture-psychiatry nexus" in a way that surpasses narratives of influence and thus

[71] Eleftherios Ikonomou and Harry Francis Mallgrave, *Empathy, Form, and Space: Problems in German Aesthetics, 1873-1893* (Santa Monica: The Getty Center for the History of Art and the Humanities, 2000). The available literature includes close studies of particular works in theory – Mark Jarzombek on Wolfflin (1994), Gustave Jahoda on Theodor Lipps (2005), and Rainer Schützeichel's on Wöfflin and Schmarsow (2013) – but also more comprehensive studies, including Daniel Depew's"Empathy, Psychology and Aesthetics: Reflections on a Repair Concept*"*(2005), Juliet Koss' "On the Limits of Empathy" (2006), and Karsten Stueber's *Rediscovering Empathy* (2010). Jahoda G, "Theodor Lipps and the Shift from 'Sympathy' to 'Empathy'.," *Journal of the History of the Behavioral Sciences* 41, no. 2 (2005): 151–63; Rainer Schützeichel, "Architecture as Bodily and Spatial Art: The Idea of Einfühlung in Early Theoretical Contributions by Heinrich Wölfflin and August Schmarsow," *Architectural Theory Review* 18, no. 3 (2013): 293–309; Depew, "Empathy, Psychology, and Aesthetics: Reflections on a Repair Concept"; Juliet. Koss, "On the Limits of Empathy.," *Art Bulletin / Ed. John Shapley [u.a.].*, 2006, 139–57; Karsten R. Stueber, *Rediscovering Empathy: Agency, Folk Psychology, and the Human Sciences* (Cambridge, Mass.: MIT Press, 2006).

[72] Juliet Koss, *Modernism After Wagner* (Minneapolis: University of Minnesota Press, 2010).

[73] Estelle Thibault, « *Entre Expression et Sensations. Les Esthétiques de l'Architecture en France 1850-1950 »*, (PhD diss., Université Paris VIII. Saint Denis Vincennes, 2005); Estelle Thibault, « Une esthétique des foules a l'àge de la machine », in *Spielraum*: Walter Benjamin et l'architecture (Paris: Éditions de la Villete, 2011), 143-155; Estelle Thibault, *La géometrie des emotions: les esthetiques scientifiques de l'architecture en France, 1860-1950* (Wavre: Mardaga, 2010). Estelle Thibault, "Constructing Emotions: The Scientific Aesthetics of Architecture in France 1860-1900," in *Blackwell Companion to the History of Architecture. Volume III: Nineteenth-Century Architecture*, eds. Martin Bressani and Christina Contandriopoulos (New York: Wiley, 2017), 436–51.

treats the arts and sciences as mutually constitutive.[74] Particularly relevant to my own project is this collection's efforts to look back into pre-Freudian concepts, and to see how they circulated amongst artists and scientists of the late 19th and early 20th century. Jan Goldstein's contribution, "The Advent of Psychological Modernism," recalls the mid-19th-century polemic concerning the unity of the subject and traces its reverberations in the art and science of the fin-de-siècle. For my own research, Goldstein's history – elaborated in dialogue with French scholars such as Elisabeth Roudinesco (1986) and Jacqueline Carroy (2007) – provokes a fertile line of questioning with regards to the homology between aesthetic unity and psychic unity in French aesthetics.[75]

My research engages scholarship on the human body as conceived according to transformations in 19th-century energy science. The work of Anson Rabinbach shows that critical to these sciences is a notion of human energy which undergoes radical changes in response to mid-19th-century thermodynamics.[76] Several recent studies have explored the implication of this science for the development of modern art. Robin Veder's The *Living Line: Modern Art and the Economy of Energy* (2015) describes the confluence of body cultures and physiological aesthetics that were used to underwrite the transition from traditional representation to formal

[74] The collection brings together historians of science who attempt a "first detailed synthetic and cross disciplinary study of the complex cultural interface between aesthetic and psychological modernism. Micale, *The Mind of Modernism : Medicine, Psychology, and the Cultural Arts in Europe and America, 1880-1940*, 3.
[75] Jacqueline. Carroy, *Hypnose, Suggestion et Psychologie. L'invention de Sujets.* (Paris: PUF, 1991); Jacqueline Carroy, "The Post-Revolutionary Self: Politics and Psyche in France, 1750-1850," *French Studies* 61, no. 4 (2007), 519–20; Elisabeth Roudinesco, *La Bataille De Cent Ans: Histoire De La Psychanalyse En France* (Paris: Seuil, 1986).
[76] What were previously described as distinct faculties of sensation, ideation, and willpower are now conceived as a set of interlocking systems of matter in motion. Above all, the new Helmholtzian science attempts to understand the processes of conversion between these various systems and, in so doing, to gain some predictive insight into the body as "a reservoir of energy awaiting conversion to work." It is this capacity for conversion that constitutes, for Rabinbach, the "motoric" logic at the heart of new wave of experimental science. Rabinbach, "The European Science of Work: The Economy of the Body at the End of the Nineteenth Century"; Rabinbach, *The Human Motor*; Anson Rabinbach, *The Eclipse of the Utopias of Labor* (New York, NY: Fordham University Press, 2018).

abstraction.[77] While Malika Maskarinec's *Forces of Form in German Modernism* (2018) describes how modernist notions of form are philosophically embedded in the relationship between formation (Bildung) and force (Kraft).[78] In an adjacent field of scholarship, movement provides a related energetic framework for addressing overlapping histories between art, science, and technology.[79] My thesis draws from the work of Michael Cowan (2011) on rhythm , Felicia McCarren (2003) on dance, and Carrie Noland (1999) on poetry.[80]

Finally, I engage a field of literature addressing the epistemic changes that enabled a new techno-science of the human body to emerge in the 19th century.[81] Most significant for my research have been Robert Brain's *Pulse of Modernism* (2015) and Zeynep Çelik Alexander's

[77] Robin Veder, *The Living Line : Modern Art and the Economy of Energy* (New Hampshire: Dartmouth College Press, 2015),

[78] Malika Maskarinec, *The Forces of Form in German Modernism*, (Evanston, Illinois: Northwestern University Press, 2018).

[79]This interest is suggested by two recent collections on this theme: *Moving Modernisms: Motion, Technology and Modernity* (2016), explores how new relationships to movement, "both real and fantastical," were central in the formation of modernist aesthetics. *Vibratory Modernism* (2013) treats vibration as an important transversal between the art and science of the fin de siècle. Anthony Enns and Shelley Trower, eds., *Vibratory Modernism* (Houndmills, Basingstoke, Hampshire, UK: Palgrave Macmillan, 2013); David Bradshaw, Laura Marcus, and Rebecca Roach, eds., *Moving Modernisms: Motion, Technology, and Modernity* (Oxford: Oxford University Press, 2016).

[80] Within the German context, Michael Cowan's *Technology's Pulse: Essay on Rhythm in German Modernism* (2011) describes the emergence of rhythm in opposition to increasingly standardization in labour and time. Felicia McCarren's *Dance Pathologies* (1998) and *Dancing Machines* (2003) both focus on how the discourse of rhythm was embedded in the medical pathologies of the late 19th century. Finally, addressing the experience of temporality as a feature of modern poetry is Carrie Noland's *Poetry at Stake: Lyric Aesthetics and the Challenge of Technology* (1999). Michael J. Cowan, *Technology's Pulse: Essays on Rhythm in German Modernism* (London: Institute of Germanic & Romance Studies, 2011); F.M. McCarren, *Dancing Machines: Choreographies of the Age of Mechanical Reproduction* (Stanford University Press, 2003); F.M. McCarren, *Dance Pathologies: Performance, Poetics, Medicine* (Stanford University Press, 1998); Carrie Noland, *Poetry at Stake : Lyric Aesthetics and the Challenge of Technology* (Princeton, N.J.: Princeton University Press, 1999).

[81]The following are also relevant studies in epistemology: John Tresch's *Romantic Machines* (2012), describes how new conceptions of energy and instrumentality traversed scientific and pseudo-scientific endeavors, signaling the beginnings of a new relationship between humans and machines. John Pickstone's *Ways of Knowing* (2001*)* describes how 19th-century scientific disciplines provided the epistemic basis for a new technics of the human body. Benjamin Morgan's *Outward Mind* (2017) considers the epistemic models that traversed the scientific and literary activities of Victorian England. Morgan expands the field of epistemology to include the associations of people and networks of objects that enabled these shared imaginaries to gain traction. John Tresch, *The Romantic Machine: Utopian Science and Technology after Napoleon* (Chicago: University of Chicago Press, 2012); John V. Pickstone, *Ways of Knowing: A New History of Science, Technology, and Medicine* (Chicago: University of Chicago Press, 2001). Benjamin Morgan, *The Outward Mind: Materialist Aesthetics in Victorian Science and Literature* (Chicago: The University of Chicago Press, 2017).

Kinesthetic Knowing: Aesthetics, Epistemology, Modern Design (2017).[82] Brain's work describes as "zigzag of cross-fertilization," in which the "experimental systems" of scientific aesthetics emerge as the central paradigm for artists and intellectuals of the fin-de-siècle. The deepest implications of Brain's narrative seem to be that, more than a shift in knowledge, physiological aesthetics heralded an age in which the human body was presumed to be malleable and expansive in its capabilities. Alexander's work similarly pursues the 19th-century aspiration to ground modern science in the immediacy of human sense perception. Alexander details the emergence of a distinct form of knowledge – *Kennen* as distinct from *Wissen* – and shows how, concurrent with the elaboration of the Prussian education system, kinaesthetic concepts and practices came to inform a pedagogical tradition culminating in the Bauhaus. With Alexander I share the question of how 19th-century science informs the ambitions of early 20th-century modernism.

Art and Architectural Modernism

The study of historical modernism refers to an ambiguous category. While often used by scholars to describe the cult of novelty that emerged in the late 19th century, this same phenomenon has also been largely conceived, whether via Adorno's Hegel or Greenberg's Kant, as the dialectic whereby various art forms began to assert their aesthetic autonomy from the culture at large. Against this accepted periodization, Andreas Huyssen's *After the Great Divide* (1986) represented a pivotal effort to complicate this history, drawing out the important role of mass culture in distinguishing between radically different strategies pursued under the

[82] Z.Ç. Alexander, *Kinaesthetic Knowing*; Robert Brain, *Pulse of Modernism*.

name of the modern.[83] Huyssen's scholarship introduced a wedge between a first generation of European modernists, who defined themselves in opposition to mass culture, and a second moment of the avant-garde, which undermined this autonomy through a variety of political, technological, and aesthetic strategies. Huyssen's account prompted a more comparative spirit of analysis and was followed by a generation of scholars doing interdisciplinary research on the borderlines between art, architecture, and mass media. Particular models for me are found in Nina Rosenblatt's doctoral thesis *Photographic Neurasthenia: Aesthetics, Modernism and Mass Society in France, 1889-1929*, which describes how French modernism developed by aligning itself with technologies of mass reception.[84]

Providing an important context for my work is literature which situates post-war art within a longer modernist trajectory. Kenneth Silver's *Esprit du Corps: The Art of the Parisian Avant-garde and the First World War* (1989), provides a still-relevant reading of how a reactionary "call to order" was defined against the perceived decadence of the pre-war period.[85] I read Silver's chapter "From Analysis to Synthesis" as newly relevant alongside recent epistemic histories of science, cited in the previous section with regards to Alexander (2017), (Pickstone (2001), and Brain (2016).[86] Likewise, in his contributions to *Realism, Rationalism, Surrealism: Art between the Wars* (1993), David Batchelor offers an important reading of how Purism emerged at a moment in which artist groups defined themselves, not through exhibition practices, but through the publication of manifestoes and journals.[87] It is within this polemical

[83] Andreas. Huyssen, *After the Great Divide: Modernism, Mass Culture, Postmodernism*, Theories of Representation and Difference (Bloomington: Indiana University Press, 1986).
[84] Nina Rosenblatt, "Photogenic Neurasthenia."
[85] Kenneth E. Silver, *Esprit De Corps: The Art of the Parisian Avant-Garde and the First World War, 1914-1925* (Princeton, N.J.: Princeton University Press: 1989).
[86] Pickstone, *Ways of Knowing*; Brain, *The Pulse of Modernism*.
[87] David Batchelor, "Purism and L'Esprit Nouveau," in *Realism, Rationalism, Surrealism - Art Between Wars* (New Haven: Yale University Press, 1993), 19–30.

discursive environment that *L'Esprit nouveau* enacts an important set of antagonisms both nationally and internationally.

Similarly foundational is T. J. Clark's *Farewell to an Idea* (1999), which engages modernism as a series of episodic responses to a condition of disenchantment.[88] The unmooring of social norms, whether understood via the decline of religious authority or processes of mass urbanization, introduce for Clark a new spirit of contingency – whereby artists are for the first time given license to imagine their roles in the production of a new society. His recounting of the Post-Impressionist moment is particularly salient to my research, since it demonstrates how deeply integrated were the anarcho-communist aspirations behind a scientific aesthetics.[89] This same configuration is explored by Robyn Roslak (2007) and Leora Auslander – the latter whose *Taste and Power: Furnishing Modern France* (1996) emphasizes the role of the decorative arts in the formulation of new social relations.[90] How did a scientific aesthetics help to underwrite this new politics shared by republicans and anarchists alike? And what currency do these traditions have for the authors of *L'Esprit nouveau* in defining a new social reality?

In further situating the journal within its political landscape, I refer to Christopher Green's *Cubism and its Enemies* (1987) and David Cottington's *Cubism in the Shadow of War* (1998), both of which recount how republican promises to feature artists and designers in the formation of French society were repeatedly frustrated by the competitive realities of class society.[91] These works describe a transition around 1906 whereby the avant-garde, once defined

[88] T. J. Clark, *Farewell to an Idea: Episodes from a History of Modernism* (New Haven: Yale University Press, 1999).
[89] Similarly helpful on this question is John G. Hutton, *Neo-Impressionism and the Search for Solid Ground: Art, Science and Anarchism in Fin-de-Siècle France* (Baton Rouge: Louisiana State University Press, 1994).
[90] Leora Auslander, "Taste and Power: Furnishing Modern France. By Leora Auslander (Berkeley, California: University of California Press, 1996); Robyn Roslak, *Neo-Impressionism and Anarchism in Fin-de-Siècle France: Painting, Politics and Landscape* (Aldershot, England: Ashgate Pub., 2007).
[91] Christopher Green, *Cubism and Its Enemies: Modern Movements and Reaction in French Art, 1916-1928* (New Haven: Yale University Press, 1987); D. Cottington, *Cubism in the Shadow of War: The Avant-Garde and Politics*

in its service to the republic, now found a new source of legitimacy in its condition of marginalization.[92] These cumulative histories are important to my own insofar as they reveal the relative instability of the notion of aesthetic autonomy within a longer history of socially engaged art in France.[93] For many of the collaborators of *L'Esprit nouveau,* the experiments of the pre-war Cubists are read as a momentary lapse in a still-recent history of art and design practices conceived within the context of a collective national solidarism.[94] Interestingly, it is this Cubist lapse into autonomous practices which, according to Mark Antliff (1993, 2007), contributes to the rise of a reactionary fascism within the Parisian avant-garde.[95] I will ask: to what extent are these reactionary tendencies expressed within the pages of the journal?

An important reappraisal of *L'Esprit nouveau* was enabled by a complete facsimile of the journal reprinted by de Capo Press in 1968. This publication coincided with a now pivotal effort to dismantle the governing narratives regarding the origins of the modern movement. Manfredo Tafuri's *Theories and History of Architecture* (also published in 1968) famously challenged the so-called "operative" strategies by which historians such as Sigfried Gideon and Bruno Zevi had aestheticized the origins of modernism to privilege a normative conception of architecture in the

in Paris 1905-1914 (New Haven Conn.:Yale University Press, 1998).

[92]Robert Jensen's *Marketing Modernism* (1994) shows how this supposed autonomy was largely market-driven – and that the ideology of an anti-commercial avant-garde was central to its new commercial status. Robert Jensen, *Marketing Modernism in Fin-de-Siècle Europe* (Princeton, N.J.: Princeton University Press, 1994).

[93]Looking at this same trajectory, Malcolm Turvey's essay "The Avant-garde and the "New Spirit" (2002) suggests that, in fact, despite its stated absolutisms, the artists of the avant-garde were themselves highly ambivalent about the social implications of their artistic practices. Turvey's reading of Léger's *Ballet Mécanique* suggests that the popular conception of a new sprit inspired "fear as well as awe, anxiety as well as Apollinaire's joyousness" and that these conflicting elements are readily available to us within the works. Malcolm Turvey, "The Avant-Garde and the 'New Spirit': The Case of 'Ballet Mécanique,'" *October* 102 (2002): 35–58.

[94] On the history of French *solidarisme*, see: Paul Rabinow, *French Modern*; Rossella Froissart, "Socialization of the Beautiful and Valorization of the Useful: The Decorative Arts in France, from the Utopias of 1848 to Art Nouveau," *West 86th: A Journal of Decorative Arts, Design History, and Material Culture* 21, no. 1(2014): 69-101.

[95]Mark Antliff, *Inventing Bergson: Cultural Politics and the Parisian Avant-Garde* (Princeton, N.J.: Princeton University Press, 1993). Allan Antliff, *Anarchy and Art: From the Paris Commune to the Fall of the Berlin Wall* (Vancouver : Arsenal Pulp Press, 2007).

present.[96] The alternative suggested by Tafuri was to re-contextualize the heroes of modernism within the social conditions to which they were themselves important contributors. It was this mode of criticism that inspired a renewed understanding of the journal, as read through the lens of industry (von Moos, 1987) and mass media (Colomina, 1994; Rosenblatt, 2001).[97]

Though one aim of my research has been to uproot *L'Esprit nouveau* from the field of Le Corbusier studies, I nonetheless derive from Moos (1968), Turner (1987), Brooks (1997), and Cohen (1999), a genealogy of relevant themes and questions informing the development Charles Edouard Jeanneret in the decade leading up to the founding of *L'Esprit nouveau*.[98] From Jean-Louis Cohen's « France ou Allemagne?: Un livre inécrit de Le Corbusier » (2008), I pursue the particularly trenchant suggestion that a polemic between French and German design cultures was formative to the scientific orientations of the journal.[99] This understanding is consistent with work by Nancy Troy (1991) and Alina Payne (2012), both of which suggests that Le Corbusier's architectural ideas developed through his comparative studies of the decorative arts in Germany and France.[100] From Payne in particular I hope to develop the importance of the "orthopedic" as a clinical metaphor used by Le Corbusier in describing the art and design as functional

[96] Manfredo Tafuri, *Theories and History of Architecture*, (New York: Harper & Row, 1980).
[97] Stanislaus von. Moos et al., *L'Esprit nouveau: Le Corbusier et l'industrie 1920-1925* (Berlin: Museum für Gestaltung Zurich et Wilhelm Ernst & Sohn Verlag für Architektur und technische Wissenschaften Berlin, 1987); Beatriz Colomina, *Privacy and Publicity: Modern Architecture as Mass Media* (Cambridge, Mass.: MIT Press, 1994); Nina Rosenblatt, "Empathy and Anaesthesia."
[98] Stanislaus von. Moos and Jan de Heer, *Le Corbusier: Elements of a Synthesis* (Rotterdam: 010 Publishers, 2009); H. Allen Brooks, *Le Corbusier's Formative Years: Charles-Edouard Jeanneret at La Chaux-de-Fonds* (Chicago: University of Chicago Press, 1997); Paul Turner, "The Education of Le Corbusier" (New York: Garland Pub., 1977); Jean-Louis Cohen, "Le Corbusier's Nietzschean Metaphors," in *Nietzsche and "an Architecture of Our Minds,"* ed. Alexandre Kostka and Irving Wohlfarth (Los Angeles, CA: Getty Research Institute for the History of Art and the Humanities, 1999).
[99] Jean-Louis Cohen, *France Ou Allemagne?: Un Livre Inécrit de Le Corbusier* (Paris: Éditions de la Maison des sciences de l'homme, 2009).
[100] Payne, *From Ornament to Object: Genealogies of Architectural Modernism*; Troy, *Modernism and the Decorative Arts in France: Art Nouveau to Le Corbusier* (New Haven: Yale University Press, 2012).

interventions within the human body. Questions of "prosthesis" in architectural modernism are revisited in Wigley (1991) and Bressani (2014).[101]

Particular to my own project is a Foucauldian tradition of scholarship, which considers the origins of French modernism through the discourses in which it was embedded. In a 1975 colloquium entitled « *Le retour à l'ordre dans les arts plastiques et l'architecture*, 1919-1925 » Françoise Will-Levaillant maps its recurrent preoccupations with questions of order, construction, economy, organism, and organization.[102] Subsequent studies by Marie-Odile Briot (1982) and Joseph Abram (1982) begin to contextualize this system of concepts, drawing out a cursory understanding of its sources and affiliations with 19th-century experimental science.[103] A recent study by Judi Loach (2018) revisits this question, attributing to Le Corbusier's brother Albert Jeanneret a greater degree of influence in the orientations of the journal.[104] While these studies point to sources relevant to the journal, they lack a more systematic analysis of the various scientific contributions evolved over the course of the journal's publication. While scholars such as Briot have pointed to the inconsistencies of the journal's rationalist program – at times remarking upon the occultist tendencies shared by many of its collaborators – these inconsistencies have yet to be fully elaborated into a more systematic analysis. The most systematic study of the journal's sources is currently provided by Iuliana Roxanna Viconavu –

[101] Martin Bressani, "Prosthetic Fantasies of the First Machine Age: Viollet-le-Duc's Iron Architecture," *AA Files* 68 (2014): 43-49; Mark Wigley, "Prosthetic Theory: The Disciplining of Architecture," *Assemblage* 15, no. 15 (1991): 7–29.
[102] Françoise Will-Levaillant, "Norme et Forme à travers l'Esprit Nouveau," *Le retour à l'ordre dans les arts plastiques et l'architecture, 1919 – 1925* (Paris: Centre interdisciplinaire d'études et de recherche sur l'expression contemporaine, 1975), 157.
[103] Marie-Odile Briot, « L'esprit Nouveau: son regard sur la sciences », in *Léger et l'esprit Moderne (1918-1931)* (Paris: Musée d'Art Moderne de la Ville de Paris., 1982); Joseph Abram, « Hiératisme et Modernité: La Revue l'Esprit Nouveau », *Les Cahiers de La Recherche Architecturale*, no. 12 (1982): 8–22.
[104] Judi Loach, "Architecture, Science and Purity," in *Being Modern: The Cultural Impact of Science in the Early Twentieth Century*, ed. Robert Bud, Paul Greenhalgh, James Frank, and Shiach Morag (London: UCL Press. 207-44).

whose 2010 PhD thesis contextualizes the ideas and orientations that were central to its founding.[105] While Viconavu's work is most incisive in the chapters where it traces the polemics of a "modern classicism," her reading of an "art vivante" pays little attention to the journal's collaborators within the field of psychology. The following work attends to this gap.

[105]Vicovanu, *L'Esprit Nouveau*.

CHAPTER ONE: ORTHOPEDICS REVISITED

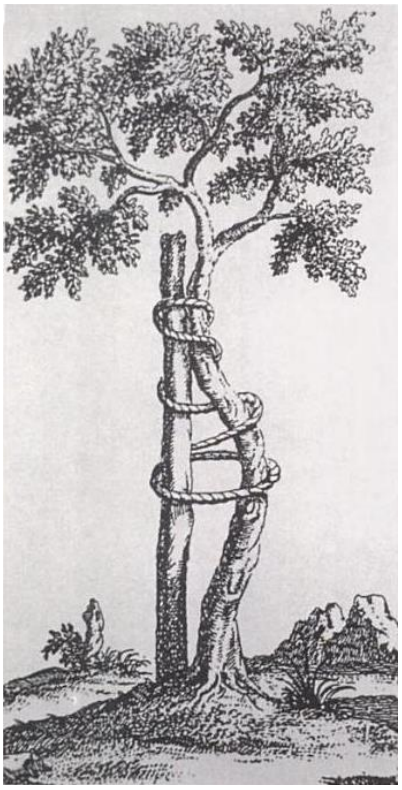

FIGURE 1.1 Frontispiece of Nicolas Andry's *L'orthopédie ou l'art de prevenir et de corriger dans les enfants les difformités du corps* (Paris: Lambert & Durand, 1741), n.p.

Drawing from the sciences, the authors of *L'Esprit nouveau* uniquely rethink aesthetic culture as a function of orthopedic hygiene. While this connection is made most explicit in Le Corbusier's claim that the "decorative arts have become orthopedic," here I pursue how a similar equation could also be attributed, more generally, to those pursuing the medicalization of modern aesthetic culture at large.[1] This is a historical proposition but also a theoretical one. My interest is to pursue the meaning of orthopedics as a contronym, i.e., a concept with a dual and often

[1] Le Corbusier, « Besoins-tvpes. Meubles-types », *EN* n° 23, n.p.

opposing nature. The orthopedic refers both to a remedying of existing conditions (from *orthos*, making right or straight), and to a prescriptive shaping of human behaviour (from *paideia*, regarding the rearing of children).[2] I propose that the journal's contributors assume this dual sense of orthopedics, not simply where the word is used, but also more broadly, whenever their social diagnoses are accompanied by forward-looking prescriptions for healthier living. I suggest that these authors share a reframing of aesthetic experience, such that it can heal and recover on the one hand, while helping to achieve new levels of excellence and productivity on the other.

The notion of orthopedics provides a unique critical entry into the modern project as imagined within the post-World War I era in France. It helps to explain the journal's frequent rhetorical slippage between a messianic heralding of the avant-garde, and a corrective reckoning with the traumas of the war and pre-war past. To classify *L'Esprit nouveau* simply as a periodical aimed at post-war reconstruction is thus to miss how this moment profoundly layered its articulations of a futural tense.[3] Indeed, while scholars have acknowledged the important role of memory and nostalgia in shaping the avant-garde, they less often address how these temporalities were inscribed by fears and aspirations developed within the medical sciences.[4] Just as the orthopedic metaphor needs to be read through a combination of past (corrective) and future (projective) temporalities, I suggest that the very concept of a "new spirit" needs to be re-

[2] The term was introduced by the French physician and writer Nicolas Andry in his 1743 book *L'orthopédie ou l'art de prevenir et de corriger dans les enfants les difformités du corps*. Oxford English Dictionary, accessed December 5, 2022, https://www.oed.com/view/Entry/132846#eid32980533. The image appears in Michel Foucault, *Discipline and Punish: The Birth of the Prison*, trans. Alan Sheridan (New York: Vintage, 2012), 257.
[3] Roxanne Panchasi cites the Bergsonian psychiatrist Eugène Minkowski as having been the first to note how the experience of war made anticipation a "salient feature of everyday life." Roxanne Panchasi, *Future Tense: The Culture of Anticipation in France between the Wars* (Ithaca: Cornell University Press, 2009), 2.
[4] Svetlana Boym, *The Future of Nostalgia* (New York: Basic Books, 2001); Romy Golan, *Modernity and Nostalgia: Art and Politics in France between the Wars* (New Haven: Yale University Press, 1995).

read as a complex and sometimes contradictory set of aspirations towards optimization on the one hand and recovery on the other.[5]

In the following chapter, I revisit Le Corbusier's orthopedic principles as a way of introducing a more generalized set of concerns with energy hygiene. Scholars often focus on Le Corbusier's specifications of the ideal size and physiognomy of his average man, but his rendering of the nervous system is no less consequential as a normative ideal.[6] To understand this dimension of aesthetic subjectivity in Le Corbusier, I begin by looking at specific objects of design and pursuing how they reflect a set of medicalized preoccupations. I suggest that Le Corbusier understands the decorative arts as managing a quantitative, energetic dimension of human experience: staving off crises and mitigating the traumas of a modern experience characterized by psychological overload. To demonstrate this rethinking of design as energy-hygiene, I describe the system of metaphors which link, amongst other things, Le Corbusier's recurring fascination with shells, turbine engines, and the figure of Diogenes, naked in his barrel. I also make an argument for why the *chaise longue,* seen from the vantage point of modern psychology, represents a central typology within a domestic energy economy. From the promise of using design to restore body and mind, I deduce a normative psychology in which the subject is, first and foremost, activated by an inner "sense of truth" and its capacity for *synthesis*. I

[5] As we shall see, optimization takes a variety of forms in the journal. The most prominent is the editor's conception of the journal contributing to the "perfection of the human brain." See: *[Editor's Note] « Ce Mois passé », EN* n° 17, n.p.

[6] On the resources from which Le Corbusier developed the physiological dimensions of his ideal man, see Judi Loach, "Le Corbusier and the Creative Use of Mathematics," *The British Journal for the History of Science* 31, no. 2 (1998): 185–215. This emphasis likely stems from Le Corbusier's writings on the modulor man in the mid-1940s. A helpful clarification of the development between the science of *L'Esprit nouveau* and the mathematical orientations of these later works can be found in J.L. Cohen, Le Corbusier's Modulor and the Debate on Proportion in France, *Architectural Histories* 2, no. 23 (2014): 1-14. A related commentary can be found in Rosenblatt, *Photographic Neurasthenia*, 210.

conclude by suggesting consistencies between this normative psychology and the therapeutic regimes advanced by Pierre Janet.

Le Corbusier's orthopedic design practice consists of a refinement of prosthetic "limb objects" in service to a healthier and more productive life. Foundational to this refinement is an understanding of the bodily functions to be accommodated for by the domestic sphere (newly dubbed the "machine for living"). Particularly telling is his article « *Besoins Types - Meubles Types* », which has as its epigraph a three-figured Larousse atlas of the human body (Fig. 1.2). "The whole machine is there," Le Corbusier writes, "carcass, nervous system, blood system, and it is each one of us, exactly and without exception."[7] In this characterization of the "type body" and its "type-needs," Le Corbusier describes the decorative arts as an artificial extension of the body to the "mechanics surrounding us."[8] It is the "improvement of our protective organs (our skin and scalp)," Le Corbusier writes, that "gives us the primordial cell of the house."[9] He wages a polemic against an unnamed interlocutor ("one of the lofty characters directing the 1925 Exhibition") who imagines what would be a more idiosyncratic and sentimental relationship to the objects of one's life.[10] Against the precious individualism of "object-feelings" and "object-lives," Le Corbusier proposes "object-tools" and "object-members," both of which are subservient to the more categorical needs of the human body.[11] Here as elsewhere in the journal,

[7] Le Corbusier, « Besoins Types - Meubles Types », *EN* n° 23. n.p. Nord helpfully situates the legacy of the Larousse as an edifice produced by late 19th-century republican print culture. He writes: "That republican print culture nursed pedagogical ambitions of a scientistic, encyclopedic cast is beyond doubt, but to sum it up as a "positivist" in orientation is to submerge its utopian aspect, its imagining of a universal order in which human beings might live in harmony with nature and themselves." Philip Nord, *The Republican Moment* (Cambridge Mass.: Harvard University Press, 1995), 191.

[8] Le Corbusier, « Besoins Types - Meubles Types », *EN* n° 23. n.p.

[9] Ibid.

[10] The Exhibition refers to the *International Exhibition of Modern Decorative and Industrial Arts*, held in Paris from April to October 1925. Le Corbusier writes « Pourtant récemment, l'un des hauts personnages dirigeant les destinées de l'Exposition de 1925 s'insurgeait violemment; l'esprit attaché à la multiple poésie, il réclamait pour chaque individu un objet différent, prétendant à des cas chaque fois particuliers. » Le Corbusier, « Besoins-tvpes. Meubles-types », *EN* n° 23, n.p.

[11] « A l'objet-outil, l'objet-membre, on nous oppose l'objet-sentiment, l'objet-vie. » Le Corbusier, *EN* n° 23, n.p.

the individualism of the psyche is deemed to be "overestimated," or at least "disproportionate" to the more common patterns of "l'homme moyen," or the statistical man.[12]

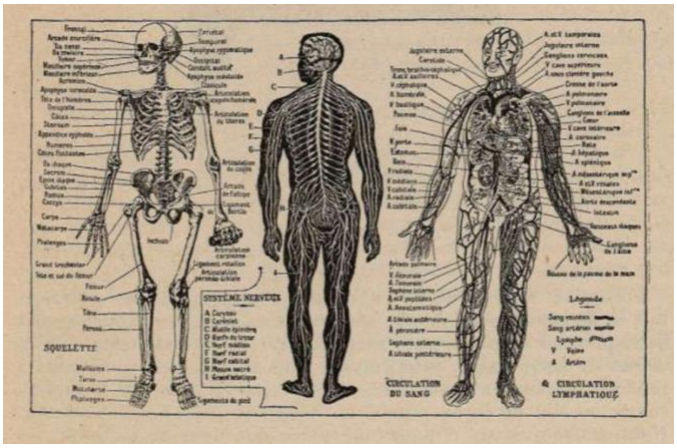

FIGURE 1.2 Larousse: *Le grand atlas du corps humain.* Reproduced in Le Corbusier, « Besoins Types - Meubles Types », *EN* n° 23, n.p.

We can begin to map out Le Corbusier's understanding of the nervous system by noting the objects that he most frequently uses to illustrate the principles of orthopedic design. A survey of the objects featured in the journal reveals that they almost always pertain to one of three categories**.** First, there are objects used for rest: as expressed in the functional variety of chairs, i.e., for work, for conversation, or for complete rest (about which more will be said below). Second, there are objects used for purposes of organization and classification in both office and home. And third, there are suitcases, luggage, and handbags: objects of travel adapted for the needs of a new cosmopolitan elite. These pre-occupations (again, with resting, organization, and

[12] The term "*homme moyen"* is derived from Adolphe Quetelet's 1835 *Sur l'homme et le développement de ses facultés.* A helpful note situating statistics alongside psychophysics can be found in Z.Ç Alexander, *Kinaesthetic Knowing, 46, 230;* On the relative unimportance of individual psychological factors, Le Corbusier writes *"*The mechanism of triggering of physico-subjective mnemes (allusion to experiences that each one did not necessarily make, feel or record) explains the differences of sensation of the different individuals in front of the same plastic fact, but these differences are, in reality, minimal; the bottom remains essential and one can say practically: the same plastic elements trigger analogous subjective reactions. It is what makes the universality of the true plastic language." Le Corbusier, « Les idées d'esprit nouveau », *EN* n° 15, 1708.

travel) question the organizational limits of the subject and the management of its energy within various domains of activity. Le Corbusier's homme moyen is, first and foremost, a man of action. "I will always feel certain, Le Corbusier writes, "that man is an active being in world in action, and not a passive element."[13]

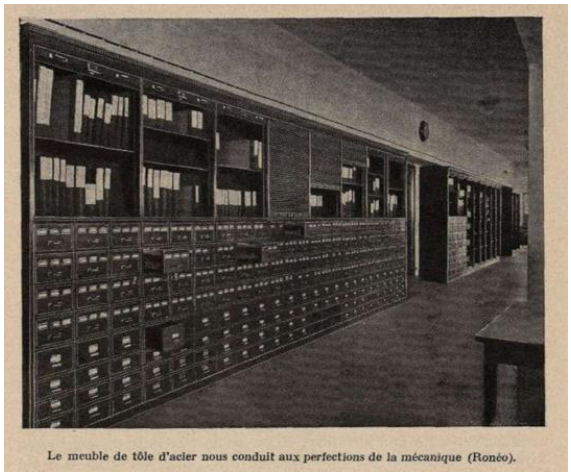

FIGURE 1.3 Ronéo Office Design, Reproduced in Le Corbusier, « Besoins Types - Meubles Types », *EN* n° 23, n.p.

But what more might be said about this active creature? Or to borrow a question posed in Alina Payne's *From Ornament to Object,* how might we begin to read these design objects as "synecdoches" for the man inside?[14] Here, I think it bears noting that wherever we encounter objects made for human optimization, they are described through nervous pathologies such as anxiety and fatigue. Consider for instance Le Corbusier's extensive collaboration with the American furniture manufacturer *Innovation* - for whom he both designed and captioned a set of 19 advertisements in the journal (Fig. 1.4). These objects for the healthy modern man are accompanied by the recurrent spectre of his illness. The mechanics of a closet organizer are

[13] Le Corbusier, *The Decorative Art of Today*, trans. James I Dunnett (Cambridge, Mass.: MIT Press, 1987), 180.
[14] Payne, *From Ornament to Object*, 149.

meant to alleviate "the narrowness of the closet [that] make[s] you feel insecure and impatient."[15] A domestic drawer set is designed to "remove all [that is] superfluous to the indispensable acts of the agitated life."[16] Even the technical specifications detailing a corner of luggage is described as an "angle intended to receive the most violent shocks."[17] In this final description, we encounter a motif commonly used to describe the psychological traumas of modern experience. This includes the diagnosis of "shell-shock," as developed by the British Psychologist Charles Myers in his observations of soldiers on the French war front.[18] But prior and more extensively, by the late 19th century, the notion of *choc* had already been transposed from a word describing military violence to one evoking the assaults of urban experience on the individual psyche.[19]

For Le Corbusier, the risks of psychological shock are anticipated not only for the cosmopolitan traveler but also within the domestic sphere. For instance, when noting the contrast between the scientific efficiency recently brought into workplace management, and the neglect of these principles within a now-antiquated living space, Le Corbusier imagines a banker: "When he gets home, he is welcomed by a load of curios capable of exploding the manometer of

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[15] *Innovation* (Advertisement), *EN* n° 22, n.p.

[16] *Innovation* (Advertisement), *EN* n° 18, n.p.

[17] *Innovation* (Advertisement), *EN* n° 25, n.p. The advertisement claims the Innovation trunk is "the most scientifically studied and the most solidly constructed trunk that has ever existed. See the discussion of this collaboration in Troy, *Modernism and the Decorative Arts in France*, 213-217.

[18] The British Psychologist Charles Myers was stationed in France during the First World War. His article describing the post-traumatic effects of war is largely seen to have popularized the notion of "shell-shock." Charles Myers, *Shell Shock in France, 1914-18* (Cambridge England: University Press, 1940).

[19] Well known is the extensive description of shock's significance as it traverses between psychology and modern poetry as found in Walter Benjamin's "On Some Motifs in Baudelaire." Benjamin writes: "One wonders how lyric poetry can be grounded in experience for which exposure to shock has become the norm." Walter Benjamin "On Some Motifs in Baudelaire," in *Selected Writings: 1938-1940*, trans. Rodney Livingstone, et al. (United Kingdom: Belknap Press, 1996), 318. A similar line of analysis appears in George Simmel's *Metropolis and Mental Life*. Simmel writes: "The deepest problems of modern life flow from the attempt of the individual to maintain the independence and individuality of his existence against the sovereign powers of society, against the weight of the historical heritage and the external culture and technique of life." George Simmel, "The Metropolis and Modern Life," in *George Simmel on Individuality and Social Forms*, ed. Donald Levine (Chicago: Chicago University Press, 1971), 324.

reason, if one could fix a manometer of thoughts on our skulls. Here, at home, he no longer works, he doesn't produce; he can lose, waste his time, trouble his spirit, wear it out, lie to it."[20] A device for measuring pressures, the manometer suggests a scientific imaginary in which the qualitative activities of mind and spirit have a corresponding economy of quantitative energies and drives. For Le Corbusier, it is the task of the decorative arts, reframed as orthopedic hygiene, to manage this quantitative dimension of human experience. "When one factor in our technical-cerebrospinal-emotional equation grows disproportionately, a crisis occurs, since the relationships are disturbed – the relationships between our cerebrospinal emotional being and the things we use that are around us."[21] The primary task of orthopedics, then, is to stave off crises and mitigate the traumas of psychological overload.

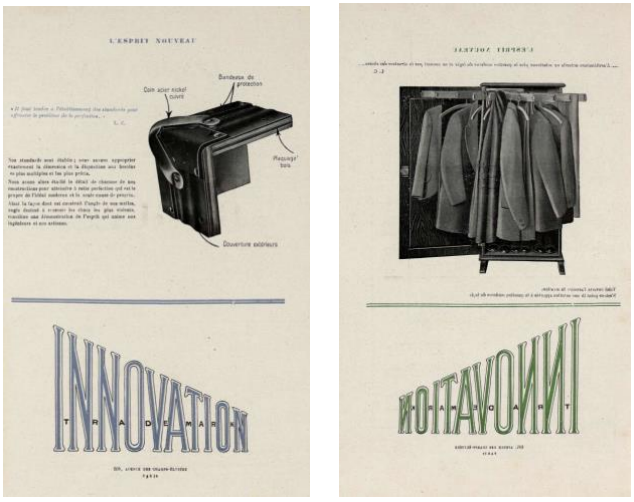


FIGURE 1. 4. Le Corbusier, Advertisements for Innovation, *EN* n° 25 (left), n° 26 (right).

[20] Le Corbusier, *Precisions*, 109.
[21] Le Corbusier, « Besoins Types - Meubles Types », *EN* n° 23, n.p.

This protective function of orthopedic design offers a suggestive re-opening onto Le Corbusier's familiar fixation with the typology of shells.[22] As is well known, Le Corbusier kept a collection of shells, several of which were included in the interiors of the 1925 *Pavillon de L'Esprit nouveau.* The symbolic value of these objects was likely informed by what Paul Valéry, in his 1923 dialogue *Eupolinos, or the Architect,* described as an uncanny ambiguity between the natural and man-made.[23] In the formal perfection achieved by these *object ambigus,* it has been suggested that Le Corbusier found an evolutionary model for a machine aesthetic that was both advanced and primordial at the same time.[24] And indeed, Le Corbusier's solicitation of photographs by the Dutch magazine Wendingen suggests his newfound admiration for how x-ray technology had finally laid bare the shell's timeless geometries.[25] However, at times, the fact that these geometries were produced – even naturally secreted – directly from a living being was equally significant for Le Corbusier. An illustrated anatomy in his article "The Sense of Truth" details the interconnectedness between the snail's hardened shell and the « *partie vivante de l'animal* ».[26]

[22] Niklas Maak writes: "Unlike the surrealists, who used objects as points of departure for generating individual associations, Le Corbusier sees in them a manual for understanding the universal laws of nature." See Maak's discussion of the ambiguous object in Niklas Maak, *Le Corbusier: The Architect on the Beach* (Munich: Hirmer, 2011), 121-124.
[23] In 1926 Le Corbusier made a direct reference to Eupalinos in his Almanach d'architecture moderne (1925): "In a book with the title *Eupalinos*, or *The Architect*, Paul Valéry, succeeded as a poet in saying things about architecture that a professional would never be able to formulate, because [the professional's] lyre is not attuned to that tone: he has felt and expressed admirably many profound and rare things that an architect senses when he creates." Le Corbusier, *Almanach d'architecture moderne* (Paris: Éditions G. Crès, 1925), 26. On the uncanny dimensions of Le Corbusier's "*objects ambigus*" and their relation to surrealism, see Anthony Vidler, *The Architectural Uncanny: Essays in the Modern Unhomely* (Cambridge, Mass.: MIT Press, 1992), 156-7.
[24] Banham, *Theory and Design,* 259.
[25] Tim Benton, *LC Foto: Le Corbusier: Secret Photographer* (Zürich: Lars Müller, 2013), 31, 309.
[26] Le Corbusier, *The Decorative Art of Today, 182.*

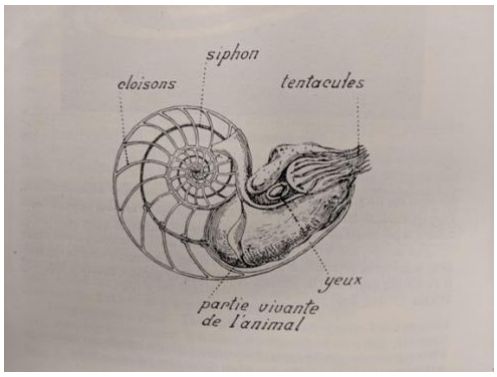


FIGURE 1.5 Unattributed Illustration. Reproduced in Le Corbusier, *The Decorative Art ofToday*, trans. James I Dunnett (Cambridge, Mass.: MIT Press, 1987)*, 182.*

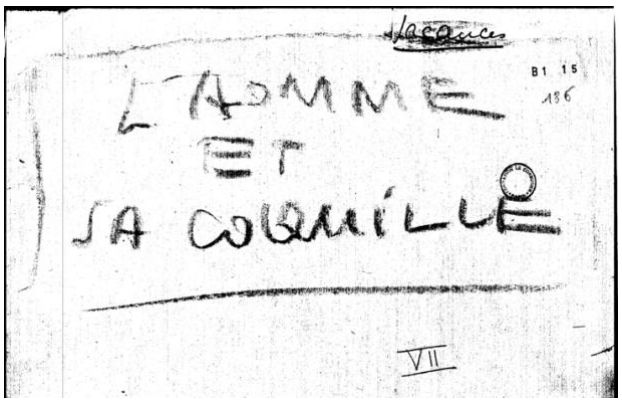
What is at stake in this interconnectedness between the living creature and its hardened exterior? First, worth noting here is a continuity between a 19th-century Romantic vitalist discourse that sees technology in continuity with the living creature.[27] As described by Canguilhem, proponents of this continuity observed in machine building an expression of irrational bodily imperatives: natural processes that extended the limits of the body.[28] With Le Corbusier, this tradition takes a somewhat complicated turn. For indeed, the shell imagines a body which is naturally pre-disposed to its own self-sufficiency. It is because of its own vitality – and not the imposition of a negative principle of society, technology, etc. – that the living creature produces a protective membrane that can be self-sustained regardless of location. Or, like Diogenes in his barrel, to cite another recurring figure within the Le Corbusien imaginary, a subject is ”born naked and with insufficient armor,” and is thus organically disposed to find the artificial means of its protection.[29] As Mark Wigley has pointed out, there is a certain perversity

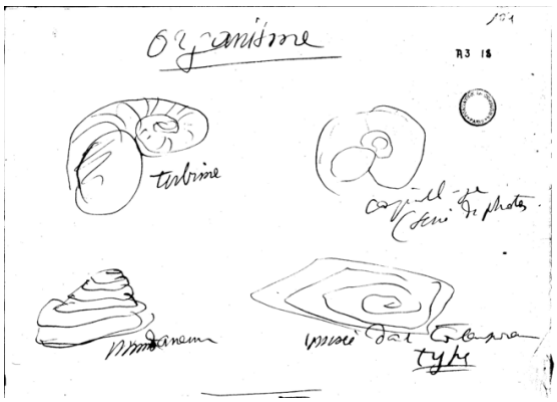
[27] See this discussion of Canguilhem in Martin Bressani, “Viollet-le-Duc's Organic Machine,” in *Architecture*/*Machine, Gta Papers,* ed. Moritz Gleich and Laurent Stalder, (Zurich, Switzerland: Gta Verlag, 2017), 60-61.
[28] Ibid.
[29] Le Corbusier, « Besoins-tvpes - Meubles-types » *EN*, n° 23, n.p. A helpful discussion of Diogenes can be found in Tag Gronberg, “Speaking Volumes: The ‘Pavillon De L'esprit Nouveau,’”*Oxford Art Journal* 15, no. 2 (1992): 64.

to the way this "insufficiency" conditions the requirement for prosthesis. "In a strange way, Wigley writes, "the body depends upon the foreign elements that transform it."[30] Wigley's uses of prosthesis are helpful in appreciating the object-oriented dimensions of Le Corbsusier's thinking: his fragmentation of the body and its behaviours into discrete type-needs met with a corresponding refinement through objects of design. Moreover, Wigley's references to Freudian theory, with its analysis of a dynamically cathected (i.e., invested) objectivity, makes for a compelling ancillary to these claims. Yet notably elided by this prosthetic logic are the global dimensions of Le Corbusien psychology: the ways in which such fragmentations always appear under the horizon of subjective individuation as conceived under the terms of a dynamic energy economy. In this respect, I suggest that Le Corbusier's orthopedics cannot be adequately addressed via the logic of prosthesis, nor can his normative psychology be expressed with recourse to the Freudian subject. For more than an evolution in the techniques of defense – i.e. prosthetic objects compensating for the traumas of war - orthopedic design treats individuation as a problem of action.[31] Following the tenets of modern energy science, the subject is defined, first and foremost, in its capacity for doing work.

[30] Perversity is my own term here. Wigley's argument helpfully contrasts Le Corbusier's "insufficiencly armoured body" with what Freud's theorized as an originary "deficiency" produced by exile from "the first lodging" – i.e. the womb. Mark Wigley, "Prosthetic Theory," 8.

[31] Several scholars have shown how the logic of prosthesis is both theoretically and historically tied to the experience of warfare. On this theme see Martin Bressani, "Prosthetic Fantasies of the First Machine Age," 43-49. Bressani cites the following from Mark Wigley: "Prosthetic technology alternated between producing substitutes for the body parts that military weapons had destroyed and producing these very weapons. All weapons are prosthetic." Mark Wigley, "Prosthetic Theory," 23. A similar distinction informs Tim Armstrong's definition of two types of "prosthetic modernism:" one negative, which responds to a perceived lack in the body, and one positive, which uses technology to augment the body into new utopian futures. Tim Armstrong, *Modernism, Technology, and the Body: A Cultural Study* (Cambridge, UK: Cambridge University Press, 1998).





FIGURES 1.6 - 1.7 Le Corbusier, unpublished notes.
Fond. Le Corbsusier, B1-15-186-001 (L) and A3-18-103-002. (R)

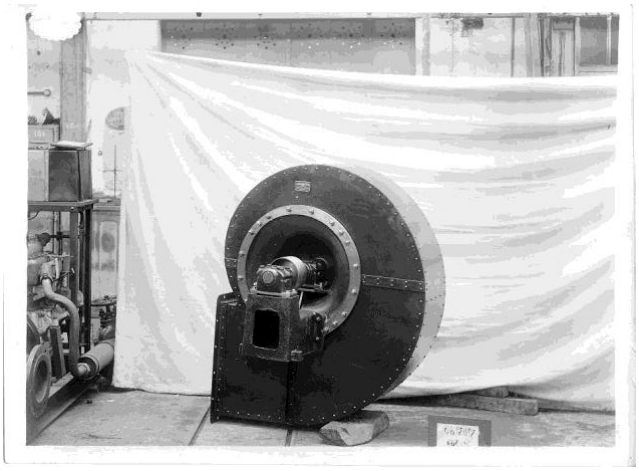


FIGURE 1.7-1.8 Le Corbusier, misc. photographs.
Fond. Le Corbusier, A1-11-105-001(L) and A3-18-103001(R).

Beyond its protective function, Le Corbusier's shell also connotes the activity and dynamism that is constitutive of a healthy modern man.[32] Where the tradition of ornamental encasement represents a pacifying narcotic – meant to cool the "feverish pulses and nerves

[32]See B. Elliott, "Modern, Moderne, and Modernistic: Le Corbusier, Thomas Wallis and the Problem of Art Deco," in *Disciplining Modernism* (London: Palgrave Macmillan, 2009), 134-135.

shattered in the aftermath of war" – the shell's purity, also its "nakedness," suggests the requisite simplicity needed for an active life.[33] This emphasis gains a further dimension if we consider pictorial associations frequently made by Le Corbusier between the naked shell and the turbine engine (Fig. 1.6 - 1.9). More than a formal resemblance between primordial nature and modern machine, this association asserts the subject as a dynamic self-contained system, capable of radiating outward varying degrees of productive energy. By this logic, the shell's nakedness represents a subject that is not diverted from its own projects, but rather continuously building outward from an interior living core. This subject's expansion relies upon an asceticism towards anything that encumbers its capacity to be alone with itself and to think: "The naked man – but he is an animal worthy of respect who, feeling a head with a brain on his shoulders, sets himself to achieve something in the world."[34] Nakedness, shells, Diogenes in his barrel: For Le Corbusier, these are all figures of psychological hygiene. They represent the preconditions for a life of unfettered production.

Precisely at odds with the Freudian project, Le Corbusier's metaphors allow him to imagine human psychology not through an introspective "unloosening" of the mind, but rather as an outward expansion from one's innermost sense of judgement.[35] Le Corbusier writes:
"An active being carries with him the sense of truth, which is his power of judgment. It is an imperative which is at the same time his lucidity and his force."[36] By contrast with analysis, judgement for Le Corbusier refers to a capacity for synthesis. It is the faculty which proceeds

[33] Walter Benjamin writes: "The étui-man looks for comfort, and the case is its quintessence. The inside of the case is the velvet-lined trace that he has imprinted on the world." Walter Benjamin, "The Destructive Character," *Selected Writings*, vol. 2, 1931-1934 (Cambridge, Mass.: Harvard University Press, 1999), 541-542.
[34] Le Corbusier, « Besoins-tvpes. Meubles-types », *EN* n° 23, n.p." On nakedness and philosophy in the French Lycée, Goldstein describes the student's initiation into a mode of inquiry "that allegedly revealed thought "in its nakedness. Jan Goldstein, "Neutralizing Freud: The Lycée Philosophy Class and the Problem of the Reception of Psychoanalysis in France," *Critical Inquiry* 40, no. 1 (2013): 48.
[35] Le Corbusier, *The Decorative Art of Today,* 181.
[36] Ibid., 180.

from the most minute and effervescent details to their participation in universal geometries – or from "the brute object to the cosmic phenomenon."[37] Judgement, which is also described by Le Corbusier as "one's inner sense of truth," is the central animating principle of the productive life. In relation to the shell, we might say that it represents "le partie vivante d'animal."[38]

This dimension of Le Corbusien psychology is most clearly articulated through the orthopedic design of rest. And here I suggest that, for Le Corbusier, it is not the family hearth nor the matrimonial bed but rather the *chaise longue* that occupies the center of a domestic energy economy. The *chaise longue* – which was later designed and patented in collaboration with Charlotte Perriand – appears as a constant within Le Corbusier's writings of the early 1920s.[39] In stark contrast with the Freudian chaise, whose ornamentation is an invitation to encounter the associative mind as a hidden dreamscape, Le Corbusier imagines the *chaise* as a salutary moment of pure passivity in an otherwise active life. "When I designed this chair, I imagined a cowboy at the end of a day, perfect rest."[40] Note that Le Corbusier's perfect restfulness here describes a form of passivity that is primarily physiological in nature. Inspired by the trademark Surrepos chair designed by Dr. Picaud in 1918, Le Corbusier conceived of the *chaise* as a set of ideal conditions in which bodily systems regain their equilibrium.[41] At a more psychological register, the chaise supports an activity which Le Corbusier describes as 'meditation.' Here again we encounter that ground zero of Le Corbusien psychology, a kind of ruminating inner sense of

[37] Ibid., 181.
[38] Ibid., 182. Nancy Troy characterizes this emphasis on judgment as part of Le Corbusier's broader transitioning of "creative prerogative" from handcraft to processes of calibration and a selection, informed by an evolutionary model. Troy, *Modernism and the Decorative Arts in France*, 5.
[39] See examples in Margaret Campbell, "From Cure Chair to "Chaise Longue": Medical Treatment and the Form of the Modern Recliner," *Journal of Design History* 12, no. 4 (1999): 327-43.
[40] Volker Fischer, *The Lc4 Chaise Longue by Le Corbusier, Pierre Jeanneret and Charlotte Perriand*. Design Classics (Frankfurt am Main: Verlag form, 1999), 15.
[41] Charlotte Benton, "Le Corbusier: Furniture and the Interior," *Journal of Design History* 3 no. 23 (1990): 103–24, 113. See also Margaret Campbell "What Tuberculosis Did for Modernism: The Influence of a Curative Environment on Modernist Design and Architecture," *Medical History* 49 no. 4 (2005): 463–88.

truth or judgment cultivated by the perception of great works of art: "We organize our actions and free ourselves, we think about something – art for example (because it is very comforting."[42] Note here how seamlessly Le Corbusier wraps a moment of reprieve into the organization of "actions." Even the most physiological form of passivity must be justified within a life of production.

More than Freudian prosthesis then, I suggest that Le Corbusier's orthopedics evoke a therapeutic model advanced by the French psychologist Pierre Janet. A particular commonality can be found in Janet's obstinate grounding of fin-de-siècle psychology in earlier "spiritualist" ideals of a unified Cartesian subject.[43] Against a variety of new experimental systems that pursued the observable limits of this philosophical convention (the so-called « *moi intérieur* »), Janet wagered a philosophical compromise in which the *fundamental* unity of the subject could be maintained as a normative ideal.[44] Thus, for instance, whereas Freudian psychoanalysis demanded a partial shattering of the philosophical convention (i.e., the ego), Janet's therapeutic model operated in the opposite direction. It pursued the restorative potential of a subject whose personhood is developed out of a series of a mental syntheses. In his 1896 *Manuel du Baccalauré,* Janet writes: "The unity and identity of the personality, far from being granted from the first moment of life as intuitions, far from being the mechanical result of sensation itself,

[42]Le Corbusier, « Besoins-tvpes. Meubles-types », *EN* n° 23, n.p.
[43] See Jacqueline Carroy, "The Post-Revolutionary Self: Politics and Psyche in France, 1750-1850," *French Studies* 61, no. 4 (2007): 519–20. Of "spiritualism," Goldstein asserts that the term was generally used as a "code word for generic Cousinianism, with its mind-body dichotomy and space for metaphysical inquiry. "Goldstein, "Neutralizing Freud," 57.
[44]These included studies of dreaming, automatic process, and multiple personality disorders. On these histories, see Carroy, "The Post-Revolutionary Self," 519-20; Jan Goldstein, *Console and Classify: The French Psychiatric Profession in the Nineteenth Century* (Cambridge: Cambridge University Press, 1987); Ian Hacking, *Rewriting the Soul: Multiple Personality and the Sciences of Memory* (Princeton: Princeton University Press, 2001), 171-182.

must be gradually acquired and constructed. The unity of the personality is the ideal and endpoint of our efforts."[45]

In Janet's model, consciousness is placed on a continuum of evolutionary gradations. While many of his contemporaries treated nervous pathologies and altered states of consciousness as a scientific affront to the presumed cohesiveness of the individual psyche, Janet insisted that these were rather the diverse manifestations of a subject trapped within an inferior range of mental processes. Their capacity for recovery rested upon an ability to ascend towards more advanced levels of consciousness. Importantly for Janet, this process was not conceived as a by-product of philosophical introspection, nor of talk-therapy, but rather as an evolution of mental synthesis that were "*concomitant* to a life of action."[46]

FIGURE 1.10 (left) The couch in Freud's study, 1938. Photograph by Edmund Engelman, Leica Gallery, NYC.

FIGURE 1. 11 (right) Charlotte Perriand on the *chaise longue basculante,* 1928. Fondation Le Corbusier, B 306.

[45]Janet cited in Jacqueline Carroy and Régine Plas, "How Pierre Janet Used Pathological Psychology to Save the Philosophical Self," Journal of the History of the Behavioral Sciences 36, no. 3 (2000): 237.
[46] Ibid., 235.

FIGURE 1.12 Advertisement for Surrepos chair.
Fondation Le Corbusier, A1-7-386-001.

Janet's conception of the self as a pairing of mental syntheses and actions provides a helpful keystone for understanding the normative psychology underwriting Le Corbusier's orthopedic design. Like Janet, Le Corbusier imagined a subject that could be both healed and optimized by a return to an "inner sense of truth." The salutary function of art lies in its capacity to re-ground the subject within a faculty of judgement that rests at the core of each individual life. Judgement is, for Le Corbusier, the principle of vitality from which all advanced levels of thinking and action emerge. Again, the individual psyche is pursued, not as a function of analytic introspection but, rather, like turbine engine and shell, a synthetic force capable of centrifugal expansion.[47]

[47] An alternative rendering of a similar centrifugal logic is described in Hillel Schwartz' definition of the kinaesthetics of *torque:* "a spiral at whose radiant center was a mystical solar plexus and at whose physical axis was the preternaturally flexible spin, bound link by vertebral link to the earth as to the heavens." Hillel Schwartz, "Torque: the new kinaesthetic of the twentieth century" in *Incorporations*, ed. Jonathan Crary and Sanford Kwinter (New York, NY: Zone. 1992), 75. Beatriz Colomina also makes a suggestive link between the spiral form and modern psychology and the question of individuation. Beatriz Colomina, "L'Esprit nouveau: Architecture and

Also similar to Janet is Le Corbusier's depiction of the individual traversing a hierarchy of actions. In what Le Corbusier describes as the "indispensable reorganization of the domestic economy," we repeatedly encounter a subject whose health depends on the ability to stave off wasteful dispersions of energy, and to thereby project itself into more advanced forms of achievement.[48] Through orthopedic design, Le Corbusier writes, "we escape the petty actions, accidents, sterile chores."[49] Here we encounter a typical image of the body raising itself up from baser chores to higher activities.[50] Again, this hierarchy of functions is consistent with Janet's therapeutic model, which sought to restore the nervous system by systematically rebuilding the individual's capacity for productive "syntheses." Similar to the picture provided here by Le Corbusier, Janet imagined that the completion of minor chores lent the individual a greater sense of unity, harmony, and equilibrium – eventually preparing the grounds for more advanced forms of social achievement (art, science, politics, etc.). By intervening in this process – i.e., by making minor chores that much easier to accomplish – Le Corbusier imagines a form of design practice that fits squarely within this therapeutic regime.

To recap, then, in Le Corbusier's orthopedic design we encounter a reckoning with the basic organization and management of the human nervous system. I have emphasized his reliance upon practices which unify the subject and stave off unnecessary dispersions of its energy and attention. The shell, nakedness, Diogenes in his barrel: these are all figures of asceticism used by Le Corbusier to imagine the individual as its own private energy economy. At the centre of this model is the faculty of judgement, an inner sense of truth which provides the

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Publicity," in *Architectureproduction,* ed. B. Colomina and Joan Ockman (New York, NY: Princeton Architectural Press, 1988), 63.

[48]Le Corbusier, [Advertisement for Innovation], *EN* n° 18, n.p.

[49] Le Corbusier, « *Besoins-tvpes - Meubles-types* », *EN* n° 23, n.p.

[50] Le Corbusier writes: "Hierarchy. First the Sistine, that is to say the works where a passion is truly inscribed." Ibid.

basis for productive operations. From the meditations of the *chaise longue* to the transitory domesticity of the cosmopolitan traveler, one's health and well-being is dependent upon the ability to protect oneself from the shocks of modern urban life and to manage one's repertoire of productive activities. The therapeutic dimensions of orthopedic design are not to be found in an analytic revisiting of the past but rather a synthetic capacity to reorient the materials of the past into the projects of the future. "I only need what is useful to me," writes Le Corbusier in *L'Art Decoratif d'aujourd'hui.*[51] In the tradition of Janet, synthesis thus operates for Le Corbusier as a kind of positive psychology: an individual consciousness defined not by the murkiness of unconscious associations but rather by the clarity of aesthetic judgements.[52] For the *homme moyen*, we might say that aesthetic judgment is the central motor for the productive life.

The irony of Le Corbusier's orthopedic imaginary is that, while oriented towards a future coordination of art and science, it relies upon principles of psychology still grounded in 19th-century neo-Kantianism.[53] By the early 1920s, Le Corbusier's rendering of the individual as a principle of judgment was, even for the most philosophically-oriented contributors of the journal, a model that needed to be revamped by the experimental sciences. In the next chapter, I turn to three such alternatives that appeared within the pages of the journal. Each represents a distinct psychological conception of how the arts can be used to restore the health of the individual, while providing a path to its optimization. Looking to these models, I ask: What are the variety of ways in which aesthetic hygiene is defined as a process of psychological unification?

[51] Le Corbusier, *The Decorative Art of Today,* 180.
[52] Against scholars who suggest Janet was a positivist, Carroy prefers the term "positive psychologist." See Jacqueline Carroy, Annick Ohayon, et Régine Plas, « La psychologie au Collège de France », *Revue philosophique de la France et de l'étranger* 140, no. 2 (2015): 225-228.
[53] A similar irony is addressed in Rosenblatt, *"*Empathy and Anaesthesia," 81.

CHAPTER TWO: SYNTHESIS

Psychological Aesthetics: A Brief Introduction

At the time of the journal's publication, the dream of a psychological aesthetics was pursued within a variety philosophical, therapeutic, and scientific traditions. All pointed towards a similar vanguard: a questioning of the obscure processes connecting the sensuous body to the individual psyche. These connections demanded a new set of hypotheses. For whereas 19th-century psychophysiologists could use thermodynamic theories of matter in motion to describe an external stimulus and an internal (dynamogenic) response, they lacked an explanatory model for understanding how the body's intensities produced the representational contents of the human imagination. The links between body and mind represented the "secret" upon which the coming psychology would soon shed light.[1]

In pursuing these new explanatory models, modern psychology was born from a 19th-century disciplinary schism between the laboratory experiments of psycho-physiologists and the introspective methods fostered by academic philosophy.[2] Tobias Wilke has described how this disciplinary schism produced a crisis of observation in the last decades of the 19th century.[3] From the insufficiencies of each lineage, Wilke claims, an aporia opened up with regards to what the German philosopher Robert Vischer, writing in 1866, had anticipated would be the "blind spot"

[1]Friedrich Theodor Vischer writes: "There still lies a secret here on which psychology, in conjunction with physiology, would have to throw light, if the point where soul and nervous system are *one* were not veiled in impenetrable darkness for us." Cited in Wilke, "At the Intersection of Nervous System and Soul,"445-446.
[2] On this schism, see Ellenberger, "Culture, Science and the University," in *The Discovery of the Unconscious,* 262-271.
[3] Wilke, "At the Intersection of Nervous System and Soul," 443-445.
[4] Ibid., 445.

of the coming science: the "secret zone" where the "soul and the nervous system are one."[4] Wilke writes: "The very expansion of observationally grounded knowledge turns out to produce, as its corollary and counterpart, an increasing awareness of fundamental observational limits—and of the need to discursively negotiate the effects of these basic confines."[5] From this crisis of observation, there emerges a turn towards language as a way of accounting for the gap between these still nascent sciences. A set of meta-linguistic functions are used to understand the transposition of matter into mind, exteriority into interiority.

A linguistic turn in 19th-century psychology is apparent within multiple disciplinary contexts. Writing on an emerging "science of art," Estelle Thibault has written an extensive history of how the expressive qualities of aesthetic experience were recast after the model of linguistic communication.[6] She writes: "Indecisiveness regarding the appropriate terminology ("science of beauty," "philosophy of art," "science of art," and "aesthetics") were symptomatic of the difficulty, during a period of great reconstruction of the fields of knowledge, in situating aesthetics between philosophy and the social or experimental sciences."[7] These new conceptions of the aesthetic (based on the model of linguistic communication) were further distinguished on the basis of whether they were experimental or speculative hypotheses intended for a community of experts, or whether they were practical guides intended for a wider population of artists and enthusiasts. [8]

Meanwhile, in the major psychiatric clinics, there was a proliferation of new pathologies in which the structure of the psyche was examined as a function (or malfunction) in the uses of

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[5] Ibid., 443.
[6] Thibault, *Entre expression et sensations;* Thibault, *La Géométrie Des Émotions*, 9-18.
[7] Ibid., 9.
[8] For instance, compared to Charles Lévêque's *Science du beau* which was aimed at philosophers, Charles Blanc's *Grammaire* was intended for a larger public of artists and art enthusiasts. Ibid., 17.

language.[9] These included: studies of multiple personality disorder (Janet), aphasia (Broca), glossalia (Flournoy), psittasicism or "parrot speak" (Dugas), and cryptomnesia, i.e., unconscious plagiarism (Flournoy and Jung) to name but a few. In the 1890s, the famed French neurologist Jean-Martin Charcot began to describe his patients as producing a "semiology" of symptoms.[10] And though still avowedly visual in his methods of observation, Charcot's semiology referred to how the body and its gestures could be mapped according to a historical iconography of bodily signs.

Charcot's semiology would prove to have important consequences for the development of Freudian psychoanalysis. Freud attempted to de-aestheticize (i.e., de-visualize) Charcot's semiology, such that it could account for a more profound integration between language and the bodily unconscious.[11] Even for Freud, however, this rethinking of psychology as a set of linguistic processes was not immune to the crisis of observation described by Wilke. As many scholars have noted, the psychoanalytic turn was itself born from the limitations of treating the body as a quantitative thermodynamic system.[12] Or, rather, it was born from a question of how science could describe the human as a meeting of quantity and quality: an economy of energies and intensities attached to an associative imagination. In terms analogous to Wilke, Paul Ricoeur

[9] Whatever changes these might have brought to the codes of scientific observation, this new science was also an affront to the philosophical certainties of a self-possessed subject. For students of the French Lycées, psychology had been premised on the search for a "moi -interieur," a unified subjective principle that could be attained through skilled attentiveness to one's own experience. According to Jan Goldstein, experimental psychologists of the fin de siècle inherited these introspective biases, even while their clinical experiments continued to map a more obscure set of processes across the axes of consciousness and volition. These included new normative claims about attention, habit and reflex, distinctions between voluntary and involuntary memory, and a new Bergsonian inspired vocabulary of mental character as a function of divergent "tendencies. See Goldstein, "Neutralizing Freud."
[10] Roudinesco, *La bataille de cent ans*, 45-49.
[11] In his studies of hysteria, for instance, Freud suggests that the causes of his patient's illnesses are not located in the anatomical body, but rather in a set of imaginative and linguistic processes by which the anatomical body is filtered by the psyche. See Frank J. Sulloway, *Freud, Biologist of the Mind: Beyond the Psychoanalytic Legend* (Cambridge, Massachusetts: Harvard University Press, 1992), 35.
[12] Ellenberger, *Discovery of the Unconscious*, 477-480; Paul Ricœur *Freud and Philosophy : An Essay on Interpretation,* trans. Dennis B Savage (New Haven: Yale University Press, 1970); Sulloway, *Freud, Biologist of the Mind, 62-3.*

describes the emergence of psychoanalytic thinking as a transition between two discursive systems: one which perceived the quantitative features of the body as a set of thermodynamic processes, and one in which language served as the new keystone in a hermeneutic of the "drives."[13]

Freud's departure from Charcot was widely treated as an affront to the French medical establishment, since it shifted the clinical model from medical observation to acts of interpretive listening.[14] Well into the 1920s, this shift in technique was caricatured as a pseudo-science modelled on mythical literature, religious exegesis, and sleuth detective work.[15] The title of an article by filmmaker and theorist Jean Epstein in *L'Esprit nouveau* asks: "Freudianism or the new Nick-Carterianism?" (Referring to the American dime novel detective who appeared in French cinema).[16] To understand the psychological commitments of modern scientific aesthetics, it is necessary to see how they are shaped by the newly emergent popularity of Freud and by a tradition of resistances, dismissals, and misunderstandings that were, by the early 1920s, already a generation in the making.

Many of these polemical histories re-emerge within the pages of *L'Esprit nouveau*, some dealing with Freudianism directly. This is especially true in the journal's latter years, which include more frequent contributions from members of the still-nascent Paris Psychoanalytic Society. These articles, as I will later suggest, constitute a telling episode in the history of

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[13] Ricoeur, *Freud and Philosophy*. Alexander describes the broader disciplinary consequences of this transition in her epilogue. Alexander, *Kinaesthetic Knowing*, 204-211.

[14] See Carlo Ginzburg and Anna Davin, "Morelli, Freud and Sherlock Holmes: Clues and Scientific Method," *History Workshop*, no. 9 (1980): 5–36.

[15] On moral and religious basis for rejection, see: Roudinesco, *La bataille de cent ans*, 184; Sherry Turkle, *Psychoanalytic Politics: Jacques Lacan and Freud's French Revolution* (London: Free Association Books, 1992), 36.

[16] Nick Carter was a fictional sleuth detective that appeared in American dime story. Well into the 1920s, and in the pages of *L'Esprit nouveau*, Freudian therapy was caricatured as a pseudo-science modelled on the sluth detective work. See Roudinesco, *La bataille de cent ans*, 49. See Jean Epstein « Freud ou le Nick-Carterianisme en psychologie », *EN* n° 16, 1857-1864.

psychoanalysis in France. However, to properly situate these polemics within the wider project of an « esthétique vivante » it is important to first contextualize these questions within the tradition of psychological aesthetics at large. More than questioning Freudianism directly, the journal's engagements with Freudian theory responded to the riddle of how aesthetic experience described a threshold between the unconscious body and the conscious mind. The promise of answering this riddle is pervasive to fin-de-siècle aesthetics and continues to be central to the journal's aspirations to ground modern art and architecture in the sciences.

I will now focus on three conceptual models that conceive of aesthetic synthesis as a central category for psychological aesthetics: symbolic sympathy, sexual mores, and the Freudian libido. I begin with the Germanist philosopher and art historian Victor Basch's formation of "symbolic sympathy." Basch introduces the program for a scientific aesthetics within the first four issues of the journal. And while his philosophical orientations are in German empathy theory, his calls to psychologize the domain of aesthetics set the tone for a new era of scientific collectivism in France.[17] Basch is a systematic thinker. In his writings on the symbolic, we encounter an example of how meta-linguistic operations were used to describe the aesthetic unification of body and mind.

With the writer Charles Lalo, we then encounter a model of aesthetic synthesis that focuses more directly on questions of human sexuality. More than a question of the individual imagination, Lalo proposes that the domain of psychological aesthetics is the entry of the individual into collective life. In Lalo we encounter the argument that the subject is not unified by aesthetic jouissance per se but rather through a host of cultural techniques that yoke the artistic creator to a set of social mores. The moral disciplining of human sexuality, argues Lalo,

[17] Valentin Feldman says that Basch's psychological approach made him a pioneer of contemporary French aesthetics. Valentin Feldman, *L'Esthetique française contemporaine* (Paris: Alcan, 1936), 12.

involves a set of meta-linguistic processes that are constitutive of cultural form. Lalo shifts the emphasis of scientific aesthetics from psychology to his own brand of psycho-sociology, claiming that the most important questions about art can be read in the social disciplining of the artist's body.

Lastly, I will consider Lalo's remarks on Freud as a means of introducing a selection of texts by the Freudian psychoanalyst René Allendy. Similar to Lalo, Allendy strives to rethink aesthetic synthesis through the body's sublimation of its sexual drives. In translating the Freudian libido into a more generalized economy of human energy, Allendy's contributions attempt a unique merging of Freudian hermeneutics and modern science. His contributions present a telling instance of Freud's initial reception within the French medical establishment.

Victor Basch: Symbolic Sympathy

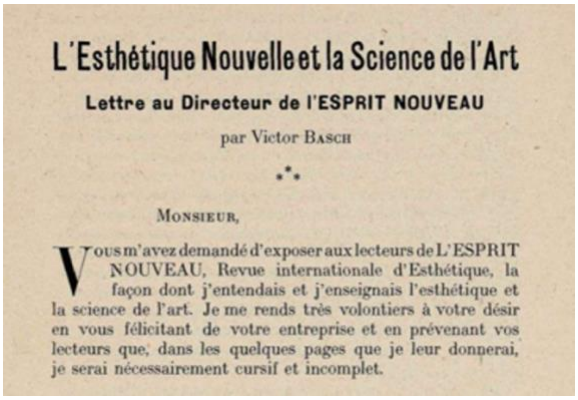
Issues no. 1 and 2 of *L'Esprit nouveau* begin with an open letter addressed to the journal's Director. Entitled "The New Aesthetics and the Science of Art," the letter begins:

> Monsieur,
> You have asked me to expose to the readers of L'ESPRIT NOUVEAU, Revue internationale d'Esthétique, the way I understand and teach aesthetics and the science of art. I will gladly comply with your wish by congratulating you on your enterprise and by warning your readers that, in the few pages I will give them, I will necessarily be cursory and incomplete.[18]

With this formality, the journal is inaugurated as an exchange amongst elites. The first to be solicited is Victor Basch, Professor of Aesthetics and the Science of Art at the Sorbonne. This Chair was inaugurated for Basch in 1918, accommodating what had become a politically untenable Professorship in Germanistics.[19] Basch was trained as a philosopher. His 630 page

[18] Victor Basch, « L'Esthetique nouvelle et le science de l'art », *EN* n° 1, 5.
[19] Céline Trautmann-Waller, « Victor Basch : l'esthétique entre la France et l'Allemagne », *Revue de Métaphysique et de Morale* 2 (Avril-June, 2002): 233.

tome, "Essai critique sur l'esthétique de Kant"(1896), was a pioneering work in modern French aesthetics, said to be the first systematic attempt to ground the science of art in psychological processes. [20] True to philosophical convention, Basch anchors his system in a critique of Kant, whose subjectivist position, he claims, was the first to disentangle aesthetics from metaphysical ideals of beauty. According to Basch, Kant nonetheless succumbed to an idealist tendency when locating the seat of aesthetic contemplation in the faculty of judgment. His aesthetics, Basch claims, is not based in individual experience so much as the accompanying induction of that experience into a universal principle. "In this way," Basch writes in his open letter, "after being metaphysical, aesthetics with Kant becomes a logic."[21] Basch's interest is thus to further secularize (i.e., corporealize) the cognitive biases of the Kantian system and to imagine what principles become available to science if aesthetic contemplation is conceived within a more radically individualized spectrum of affect, willfulness, and sensation.[22] To describe a psychological system that can account for this broad spectrum is, for Basch, the project introduced to readers of *L'Esprit nouveau* as a distinctly modern scientific aesthetics.



L'Esthétique Nouvelle et la Science de l'Art

Lettre au Directeur de l'ESPRIT NOUVEAU

par Victor Basch

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Monsieur,

Vous m'avez demandé d'exposer aux lecteurs de L'ESPRIT NOUVEAU, Revue internationale d'Esthétique, la façon dont j'entendais et j'enseignais l'esthétique et la science de l'art. Je me rends très volontiers à votre désir en vous félicitant de votre entreprise et en prévenant vos lecteurs que, dans les quelques pages que je leur donnerai, je serai nécessairement cursif et incomplet.

FIGURE 2.1. Victor's Basch « L'Esthétique Nouvelle et la Science de l'Art », *EN* n° 1, 5.

[20] Feldman, *L'Esthetique française contemporaine*, 12.
[21] Basch, « L'Esthetique nouvelle », 6.
[22] Victor Basch, *Essai Critique Sur l'esthetique de Kant* (Paris: Alcan, 1896), 10.

Basch formulates the basic outlines of his system according to Darwin's "genetic method," whereby experience is conceived as the repository of multiple evolutionary phases: a combination of "inferior" instincts and raw sensations mixed alongside the "superior" cognitive processes of ideation, association, and judgement. To distinguish between these primitive and more advanced elements, he outlines a tripartite schema that builds from "direct" or "raw" physiological sensations, to affective responses which accompany the intuition of forms, and ultimately to the "indirect" ideas and associations that are made by each individual within their society.[23] As a corrective to Kantian idealism, Basch will privilege the central term in this triad – that which combines form and feeling – treating it as the crucial link between inferior and superior faculties.

From this evolutionary schema, Basch's theoretical interest focuses on the question of thresholds. What, he asks, are the exact mental processes that constitute the transition from physiological sensation to the aesthetic experience as such? And how can such thresholds be observed by the objective standards of a new experimental science? In both respects, Basch follows Gustave Fechner in describing the aesthetic as a curious combination of quality and quantity. This means, for example, that objects are only perceived as distinct facts of consciousness if they reach certain quantitative thresholds (an inaudible sound, for instance, elicits no response); but also that certain qualitative associations – an orange or the red blush of a cheek, to cite two frequent examples – produce quantitative responses which can also be

[23] "What is important to remember is that contemporary aesthetics has processes for measuring the intensity of elementary aesthetic sensations and feelings; for clearly distinguishing between what, in the total aesthetic impression, emanates directly and spontaneously from the sensation and what associations and thought add to these direct factors; it is that it has tried to determine the constituent elements of the simplest aesthetic phenomena that generate, in the greatest number of spectators, feelings of identical pleasure and displeasure Basch, « L'Esthetique nouvelle », 12.

measured by experimental systems.[24] Between these two poles however, that is, between quantities that produce qualities and qualities that produce quantities, there is a more nebulous set of processes where the two are much harder to distinguish. Specifically, simple forms ("lines, geometric figures, consonances and dissonances") allow modern aesthetics to observe a new "intermediary" stage of psychic life.[25] To describe this intermediary stage where form and feeling, sensation and idea, are united in a single intuition, Basch develops a notion of 'symbolic sympathy' that will become his main contribution to French aesthetics.

To appreciate what is at stake in this concept, we recall here that for late 19th-century German formalists such as Theodor Lipps, Karl Groos, and Heinrich Wölfflin, the principle of *Einfühlung* or "empathy" provided an important conceptual framework for understanding how an individual is projected into the objects and spaces of perception. Robert Vischer's 1873 dissertation "On the Optical Sense of Form" was seminal to this tradition, not simply in its use of the word, but in defining an aesthetic science that would describe the mental stimulations of art, without abandoning the sensory and kinaesthetic dimensions of the body. Presented with what he called the "mystery that has to be explained by physiology in conjunction with psychology," Vischer's analysis centers on the "structures of our imagination" that enable "our feeling for symbolic form."[26] Basch is part of generation for whom these structures, and the nuances of empathy-theory more broadly, continue to inform the dream of converting aesthetic experience into a systematic science.

[24] Basch, « L'Esthetique nouvelle », 10-11.
[25] Basch, *Essai Critique*, 293.
[26] Robert Vischer, "On the Optical Sense of Form," in *Empathy, Form, and Space: Problems in German Aesthetics, 1873-1893*, ed. Eleftherios Ikonomou and Harry Francis Mallgrave (Santa Monica: The Getty Center for the History of Art and the Humanities, 2000), 92-93.

By using the language of *sympathy* instead of *empathy*, Basch signals a subtle distinction, widespread amongst French intellectuals, against an enduring romanticism, even a mysticism, attached to notions of "intuition" within the German tradition.[27] Against an alleged unwillingness to break apart the unity of aesthetic intuition, Basch claims that the immediacy of this experience can be further analyzed and defined through a set of meta-linguistic operations. For him, the symbol offers a key analytic framework. It represents not so much a theory of "symbols" per se, but of a set of "symbolic" processes which make aesthetic forms psychologically meaningful.[28] He draws from works by Vischer but also the philosopher Johannes Volkelt, outlining three stages of the symbolic: (1) In the first, the subject relates unconsciously to the symbolic associations formed either in sleep or through primitive conventions. Ideas and images are seamlessly united: in primitive religions, the sun is experienced *as* godhead, just as the dreamer believes the content of his or her own dreams.[29] (2) In contrast with this "dark" or *unconscious* mode, Basch alleges a second form of symbolic processing, this time involving a surfeit of awareness. The conscious mind makes a "clean and present" comparison between images and ideas: "the anchor is used as symbol of hope, the laurel a symbol of glory, a balance the symbol of justice."[30] Basch criticizes the so-called "associationist" theories of Fechner and the philosopher Herman Siebeck, for whom he claims that ideational content is too consciously reflexive to constitute aesthetic jouissance. From an evolutionary standpoint, Basch claims here

[27] A polemical example of this can be found in Charles Lalo « Le nouveau sentimentalisme esthétique », *Revue Philosophique de La France et de l'Étranger* 66 (1908): 441–76.
[28]"To understand the meaning of symbolic sympathy, let us first note that Basch does not speak of symbol, but of symbolism: it is thus a question of designating not a certain type of object, but the psychological process of symbolization, the act of creating the symbolic." Mildred Galland-Szymkowiak, « Le 'symbolisme sympathique' dans l'esthétique de Victor Basch », *Revue de Métaphysique et de Morale* 2 (2002): 13.
[29]Following Sherner, it was believed that the specific organ functions "translated" directly into dream content. For instance, congested lung, or an upset stomach would find symbolic expression in the language of the dream. See Ellenberger, *Discovery of the Unconscious, 304-05.*
[30]Basch, *Essai Critique,* 293.

that cognition is too dominant to experience the body in its sentient fullness. (3) It is thus, finally, in a third intermediary conception of the symbol that Basch locates the aesthetic threshold. This condition, he says:

> consists of what Vischer calls very nicely a sort of "clair-obscur" psyche in which, while knowing that the relation between the image and idea is inadequate, we are taken for a moment, during aesthetic contemplation, by the illusion that the image and the idea on which it is founded, or quasi involuntary, quasi-voluntary, quasi-unconscious, quasi-conscious, we animate the inanimate, we lend to nature our personality, we plunge ourselves with all our desires, all our aspirations, all our soul into things, and hope to refind from parts dispersed and embryonic this soul.[31]

In this passage, Basch identifies a kind of knowing deception: a "chiaro-scuro" moment in which we are emotionally moved by a semi-conscious, semi-unconscious affiliation with the objects of our perception. By an evolutionary logic, the aesthetic recalls a moment of primitive enchantment with the world of images and associations, while linking it to the more disenchanted awareness that these associations are but fictional. As Basch says repeatedly in his essay for the journal, they are but a momentary belief in psychological "constructions" that we ourselves are responsible for making.[32]

At its most basic level then, "symbolic sympathy" requires that a subjective unity is intuited through a perception of objective form. For Basch, this principle of unification is the necessary criteria for the emotional valences, quantitative or qualitative, that constitute aesthetic experience. The subject who contemplates a work is not disinterested but rather feels actively implicated by what he or she perceives. Both in his 1897 essay on Kant and in his letter to *L'Esprit nouveau***,** Basch describes this moment as a critical threshold from passivity to activity – a self-awakening in which, even without apparent locomotion, the body experiences a

[31] Basch, *Essai Critique,* 392.
[32] Basch, « L'Esthetique nouvelle », 10-11.

kinaesthetic or motor response to the objects of its apprehension.[33] Following Vischer, Basch describes this subtle activation of the body, now "sympathetically" charged in relation to the world it encounters, as a transition from imagination to *fantasy*. Basch writes: "For us to arrive at this symbolism, it is necessary that the imagination becomes fantasy, it is necessary that we have elevated ourselves to the sphere of the spirit due to the fact that we have become aware of our Ego as an entity capable of thought, love, and will, that is to say, as a personality."[34] Through its sympathy with objective form, Basch describes a subject that comes into an awareness of itself as an active, embodied, emotionally resonant force. The aesthetic subject for Basch is defined by this threshold at which perception is transformed into meaningful self-experience.[35]

If for Le Corbusier, we saw that synthesis was attributed to a faculty of judgement, in Basch we now encounter a notion of synthesis that involves a more complex coalescence of imagination, feeling, and willfulness. Basch draws from German formalist theory the idea that emotional responses to artworks are constituted by complex identifications with the objects of one's perception. Drawing from Volkelt and Vischer, Basch uses symbol and fantasy as meta-linguistic concepts that perform a unifying function between body and mind.[36] As he repeatedly stresses in his introductory essay, this unification is no longer achieved by an older metaphysics of the soul but rather through a new evolutionary science capable of understanding the linkages between primary physiological processes and more advanced ideational operations. With this evolutionary model, he inherits from his teachers in late 19th-century physiology a desire to convert a Schopenhauerian metaphysics of the will into a materialism of the body as a

[33] Basch, *Essai Critique,* 294.
[34] « Pour que nous arrives a ce symbolisme, il faut que l'imagination devienne fantasie, il faut que nous nous soyons elevés jusqu'a la sphere de l'esprit due nous ayons pris conscience de notre Moi come ere capable de pence, d'amour, et de volonté, c'est-a-dire comme personalité. » Ibid.
[35] The term "self-experience" is a phrase borrowed by the contemporary analyst Christopher Bollas. See Christopher Bollas, *Being a Character : Psychoanalysis and Self Experience*. (London: Routledge, 2015).
[36] Galland-Szymkowiak, « Le 'symbolisme sympathique' », 225.

combination of individual sensibilities and drives.[37] The promise of psychological aesthetics for Basch is that it will uncover how a willful subject emerges in kinaesthetic response to the objects of its perception.

How then are we to understand the orthopedic dimensions of Basch's psychological aesthetics? And in what ways do his theories of aesthetic synthesis double as interventions within matters of social health and vitality?

My proposal here is that we understand orthopedics for Basch as an effort to strengthen the role of the individual in collective life. In his writings, we repeatedly encounter a modern individual that suffers at opposing ends of an evolutionary process. On the one hand, there persists an animal-like being responding to a life of work and struggle.[38] An inferior set of affective responses to one's environment defines this *practical-sensible attitude*.[39] "It is above all a question of not dying of hunger, of defending oneself against the beasts of all kinds that populate the jungle of social life."[40] While this basic dimension of experience is necessary (in fact "our deepest tendency"), Basch imagines artistic contemplation as a corrective to its inferior state:

> [S]uddenly, in the middle of this incessant battle in which the weakest succumb, each of us, at certain moments, stops to contemplate, to look at a landscape, a human being, a work of art, without this sight being of the least material benefit to him. In the universal war of beings and things, a moment of pause and sovereign peace arises.

For Basch, art's temporary reprieve from a primordial state of conflict enables the elevation of the individual onto a more "generalized" plane of experience. In the aesthetic contemplation of

[37] Ibid.; Basch, *Essai Critique,* xlix; Laurent Jenny, *La Fin De L'intériorité : Théorie De L'expression Et Invention Esthétique Dans Les Avant-Gardes Françaises (1885-1935)* (Paris: Presses universitaires de France, 2002), 27.
[38] Victor Basch, « Le Maître-Problème De L'esthétique », *Revue Philosophique De La France Et De L'étranger* 92 (1921): 20.
[39] Ibid.
[40] Ibid.

form, the subject enters into sympathetic relationships, not only with the objects it encounters but also with other subjects who might share this same experience. One function of scientific aesthetics is to describe these commonalities. Or as Basch writes in his essay for *L'Esprit nouveau*, to describe the "general" psychological laws that are common to every individual in their experience of form. On this front, Basch's thinking comes closest to resembling official Purist doctrine.

And yet, more pressing for Basch than for either Ozenfant or Le Corbusier is a question about how psychological aesthetics can address the radical particularity of each individual life. For Basch, this question is formulated as a corrective to a social problem attributed to advanced civilization. At this stage in the evolutionary process, Basch sees a modern subject that forfeits its own particularity for the sake of moral principles established by cognition alone. While committing to various ideas about nation and politics, this *moral attitude* "deadens" any relationship to the individual as an affective "pulsating" being. We are, Basch writes, "oppressed by our intellectual activity."[41] Recall that this is precisely Basch's critique of Kantian aesthetics: that in privileging the universality of judgement, Kant turns art into "a logic" and negates the radical individuality of affective experience. For Basch, it is precisely this affective estrangement that explains the rise of authoritarian political movements under the banner of race and nation. Basch was an outspoken Dreyfusard and a founding member of the *League of the Rights of Man.*[42] He saw that ideas about social collectivity could easily be converted into discriminatory breaches of individual life. As a corrective to this condition of advanced societies, the aesthetic

[41] Basch writes: "It is then, because it is no longer oppressed by our intellectual activity, that the people of feelings, serfs in the normal state, which is the state of knowledge, gushes out with an energy all the more prodigious now that the contemplator is more sensitive, more vibrant." Ibid., 24.
[42] The Dreyfus affair came at the heels of his PhD dissertation, which he submitted before leading the Dreyfusards in the city of Rennes. See Françoise Basch, "Gender and Survival: A Jewish Family in Occupied France, 1940-1944," *Feminist Studies* 32, no. 2 (Summer, 2006): 302.

thus represents for Basch an opportunity to restore the evolutionary depths of embodied experience.

The science that Basch calls for in *L'Esprit nouveau* is thus one which can account for both the "general" and specific laws underpinning aesthetic experience:

> Every individual in art as in the organic world, is made up of elements that are common to all his brothers and sisters in life, but in each individual, these elements combine in a particular and unique way, and the last, most delicate and difficult goal of any science, of the science of art as of any other, is to explain the plastic link that connects the different elements of each being, the particular and unique law of crystallization to which these elements obey.[43]

Here Basch speaks as an art historian, someone who glorifies the ability to "transport oneself into the soul of an artist, into the heart of a work."[44] In an often-cited passage from the *Essai*, he asks: "what is a walk through a gallery but a series of transubstantiations and metempsychosis?"[45] The promise of psychological aesthetics is that it will discover the principles underlying these individual sympathies and be able to distinguish them from a more universal experience of form. [46] In other words, scientific aesthetics is about uncovering principles of affiliation – including those that run deeper than race or nation.

Basch's emphasis on individual feeling here is vaguely at odds with the usual accounts of Purism as a discourse of universals and types administered by an elite. It is also explicitly at odds with statements made by Le Corbusier himself downgrading the importance of individual factors in aesthetic experience.[47] Perhaps these contributed to Basch's sentiments in a letter addressed to

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[43] Basch, « L'Esthetique nouvelle », 128.
[44] Basch, « L'Esthetique nouvelle », 129.
[45] Basch, *Essai Critique*, 294.
[46] "To understand a particular artist, a particular work of art, one must begin by loving it, but one must be aware of one's love, one must embrace the work of art and the artist, both in its entirety and in all its details, put the work into the group to which it belongs, realize the historic and social influences it has undergone and finally and above all, appreciate the technique that the artist has applied to it. Now, this is no longer just love, but science, a science which, like all true science, is all bathed, all saturated with sympathy." Basch, « L'Esthetique nouvelle », 129.
[47] "The mechanism of triggering of physico-subjective mnemes (allusion to experiences that each one did not necessarily make, feel or record) explains the differences of sensation of the different individuals in front of the same plastic fact, but these differences are, in reality, minimal; the bottom remains essential and one can say

Dermée, describing his co-collaborators at the journal as a "bunch of amateurs."[48] These fault lines are worth pursuing since they draw attention to radically different models for understanding art as a corrective to social and political life. Whereas Le Corbusier treats scientific aesthetics as an elite form of management for the individual nervous system, for Basch, the science of art is about rebuilding modern society based on sympathetic relationships. Art has the capacity to return the subject to its sentient particularity, and in so doing to serve as a model for new forms of social consensus.

There is thus a direct line between Basch's theories of symbolic sympathy and his desire to cultivate new forms of social solidarism in France and beyond. To understand this connection, it is helpful to say a final word about Basch's engagement with the work of the proto-Nietzschean anarchist philosopher Max Stirner. Writing on Stirner in 1904, Basch elaborated a conception of the individual driven by a coincidence of willfulness and feeling. "The will, for Stirner, is inseparable from feeling. All emotion is at the same time impulse."[49] This coincidence between force and feeling is central to Basch's explanation of symbolic sympathy and helps to distinguish its aims from the tradition of German empathy theory. Whereas empathy suggested a training consistent with Prussian ideals of cultured individualism, in sympathy Basch found a way of orienting individual experience towards a domain of "free association" within the increasingly cosmopolitan horizons of modern life.[50] This ideal, Basch writes, "is infinitely plastic and malleable, adapting to all needs of the individual and changing according to his free

practically: the same plastic elements trigger analogous subjective reactions, it is what makes the universality of the true plastic language, that of the true work of art and its greatness." Le Corbusier, « Les Idées d'esprit nouveau », *EN* n° *15,* 1708.

[48] Nina Rosenblatt, "Empathy and Anaesthesia," 89.

[49] Victor Basch, *L'individualisme Anarchiste: Max Stirner* (Paris: Félix Alcan, 1904), 124.

[50] See here Alexander's characterization of the German kinaesthetic tradition as having its footing in the ideal of *Bildung*, which she describes as "that unique concept denoting both institutional instruction and individual self-cultivation. "Alexander, *Kinaesthetic Knowing,* 15-18.

whim, always ready to receive it and also ready to see it detached from it to join a new association, more in line with his momentary aspirations."[51] While accepting that the aesthetic contains a set of generalizable norms, it is a convention that remains radically open to new social affiliations – across national borders, and between generations. Or, more radically, we might even say that art, for Basch, by occupying a threshold between a sentient, willful body and the representational mind, presents the affective basis for sociability at large.[52] In an aesthetic science "bathed in sympathy," he saw a wellspring for new forms of solidarism.[53]

To recap, then, symbolic sympathy for Basch describes a subject unified by aesthetic jouissance. Contemplation is treated not as a reflexive distancing but as an active pleasure in the semi-conscious fantasy that equates the individual with a perception of form. More than associative imagery, which assumes no such kinaesthetic investment, the symbolic describes how discrete entities – whether visual, audible, or linguistic – become blocks in the construction of a unified individual perceived outside of oneself. And whether one is an artist or poet actively involved in this act of construction, or an eventual viewer/reader, it is ultimately the same signifying pleasures that constitute the aesthetic act. This latter point was to become a source of disagreement between Basch and Charles Lalo, the philosopher who in 1933 would succeed him as Chair to the Science of Art. Lalo, a generation younger than Basch, calls for a psycho-sociology of art centred on the productive subject, the artist. Against Basch's 19th-century tradition of grounding of art in the experience of contemplation, Lalo will redirect the zone of

[51] Victor Basch, *L'individualisme Anarchiste,* 124.
[52]Rosenblatt links this principle to a sociological wave in French aesthetics, centered on the figure of Jean-Marie Guyau. Rosenblatt, "Photogenic Neurasthenia," 14.
[53]On the history of solidarism, see Paul Rabinow, *French Modern: Norms and Forms of the Social Environment* (Cambridge, Mass.: MIT Press, 1989), 18. As Froissart explains, the principle of *solidarisme* developed in 1890s France - the notion that the individual belongs to an organic social "body" - was initially take up by progressive leftists such as Basch, though soon taken up as justification for a wave of paternalist, national conservatism. Froissart, "Socialization of the Beautiful," 80.

psychological inquiry onto artistic practices as particular manifestations of the social disciplining of sexuality. We shall now turn to the theoretical implications of this transformation and consider how they contain a new interpretation of art as a form of synthesis.

Charles Lalo: « L'Esthétique sans amour »

Lalo's contribution to the journal follows directly from Basch and includes a two-part excerpt from a prize-winning essay entitled « *La Beauté et l'instinct Sexual* ».[54] Like Basch, Lalo follows Fechner in grounding scientific aesthetics in the question of thresholds.[55] However, where Basch locates this threshold in the symbolic functions of the psyche, Lalo seizes on the fact that these processes are historically situated by moral norms, value-systems, and the sanctions of taste. "The true aesthetic threshold," he argues, "is a social fact."[56] In saying this, Lalo suggests that "the new aesthetic sentimentalism," represented by empathy theory and its many offshoots, is meaningful to the degree that it describes our participation in a collective. "If there is something objective which surpasses our individuality in the judgement of beauty," he writes, "it is not in Einfühlung, but in the objective conditions of *Einfühlung,* historical or technical, which is the main problem."[57] To produce a scientific system, Lalo thinks that one would first have to understand what produces this linkage between the individual and the social. To do this, he transforms the central aesthetic scenario from contemplation to technique and turns from

[54] In fact, the essay is an excerpt from a larger essay awarded a prize by *l'Académie des Sciences Morales et Politiques* in 1920. It responds to the question posed by the Academie: Can art free itself from morality? See prefatory advertisement in Charles Lalo, *La Beauté Et L'instinct Sexuel*, (Paris: E. Flammarion, 1922) n.p.
[55] Lalo wrote a doctorate on Fechner and, following Théodule Ribot, was largely held responsible for translating and popularizing his work in France. An advertisement in Issue n° 8 promises an essay by Lalo on « Fechner et l'ésthetique experimental experimental » but it never appears. Jan de Heer suggests that it is Lalo who introduced Le Corbusier and Ozenfant to Fechner's work. See Jan de Heer, *The Architectonic Colour: Polychromy and the Purist Architecture of Le Corbusier* (Rotterdam: 010, 2009), 33-36.
[56] Charles Lalo, « L'esthétique expérimentale contemporaine » (Paris: Alcan, 1908), 168.
[57] Lalo « Le nouveau sentimentalisme esthétique », 475.

questions of enjoyment and pleasure to how an individual artist trains his or her bodily sensibility to participate in social norms.

Lalo defines technique as a social phenomenon registered within the individual body of an artist. Through technique, an "intensity of the collective" manifests a work of art. This refers to the ways in which creative practices reaffirm norms but also how the artist brings into effect new and still virtual norms, often projecting "a possible public" into a "hypothetical posterity."[58] In other words, the intensity of an artwork as a "social fact" is measured not by the number of people moved by it but rather by the artist's individual rigour in conforming to its (existing or potential) social codes.[59] Beauty no longer represents a timeless category of experience but rather has the feeling of an imperative, i.e., "an authority imposed by virtue of a social organization capable of setting values."[60] Lalo describes this as a "feeling of solidarity" that surpasses our personality and produces the very conditions for our personality to exist.[61]

Lalo's science of art thus boils down to a kind of riddle. It asks how artistic discipline, though an individual physiological and psychological experience, is ultimately conceivable under the category of the social. Lalo's answer to this riddle is found in a deeper reckoning with the function of human sexuality. Like Basch's genetic theory (of an art evolved from baser functions of the organism), Lalo thinks that the sexual instinct must be considered as the origin-story of all contemporary aesthetics. The title of Lalo's essay « *L'Esthétique sans amour* » describes the reactionary position advanced by Lalo's rhetorical adversary, Ferdinand Brunetière,

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[58] Charles Lalo, « L'esthétique Scientifique », *Revue Philosophique De La France Et De L'étranger* 68: (1909) 48.
[59]"Art is social not by number of a individuals but by the intensity of solidarity attained., organization, discipline that it represents and which manifest sanctions as objective signs." Charles Lalo, « Programme d'une Esthétique Sociologique », *Revue Philosophique De La France Et De L'étranger* 78 (1914): 43.
[60]On this point, Lalo cites Durkeim: "In its concrete reality, the aesthetic phenomenon is therefore essentially a social fact. It is observable, like the others, by means of the sanctions that organize it. Charles Lalo, « L' esthéthique expérimentale contemporaine », (Paris: Alcan, 1908), 201.
[61] Lalo, « L'esthétique Scientifique », 262.

editor of *La Revue des deux mondes*. Brunetière is one of several moralists for whom artworks must be purged of sexuality to become properly aesthetic.[62] Lalo describes this convention in contemporary French thought as a kind of "necro-aesthetics" – a study of dead forms by dead bodies — which must be brought back to life through a scientific understanding of the erotic as a principle of vitality. "The attempt to build aesthetics without the idea of love," he says, would be like building a "system of the world without involving the first motor."[63] The essay thus calls for a general program of scientific aesthetics where the erotic acts as a bridge between the physiological, psychological, and sociological dimensions of art.

Lalo's theory of the erotic is built on a genetic distinction between inferior sexual instincts and more advanced forms of desire and love. Similar to Basch's account of aesthetic sympathy, this distinction attends to a human subject capable of unification. "It is a recognized fact of all contemplated psychologists," Lalo writes, that "a host of divergent tendencies strive in every moment of our lives, to dismember the synthetic unity of our consciousness, and perpetually they struggle among themselves for total domination . . . the most dangerous for the existence of aesthetic sympathy itself, is certainly sexual."[64] As a divergent tendency, the sexual impulse recalls an evolutionary moment in which the organism yields to the species' demand for reproduction. Paradoxically, this most impersonal instinct is experienced as a "selfishness unable to come out of itself."[65] Lalo claims that one sees examples of such fleeting and disorganized sexual impulses in the culturally regressive tendency to experience art pornographically.

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[62]Lalo also cites Tolstoy in the same context. See also Brain's related discussion of Max Nordau and Julien Benda in Brain, *Pulse of Modernism*, xx. Lalo writes: "The ascetic doctrine of art therefore confines in spite of itself and to its defending body, the impotence of an aesthetic theory to do without sexual instinct to explain aesthetic facts. The more it condemns erotic aesthetics in law, the more it actually affirms its reality: since an artistic value is a fact the reality of which cannot be removed by denying it." Lalo, « L'Esthétique sans amour », *EN* n° 6, 631

[63] Ibid., 632.

[64] Lalo, « L'Esthétique sans amour », *EN* n° 5, 494.

[65] Lalo, « L'Esthétique sans amour », *EN* n° 5, 497.

Pornography, he says, is the incapacity to transcend the perception of *nakedness* with the *nude*: whereas the former arouses a gendered subject that is unable to rise above its specific sexual drives, the latter appeals to an androgynous aesthetic subject raised to its superior faculties.[66] An appreciation for the latter reflects not a renunciation of the sexual (as his moralist contemporaries argued) but a disciplining of the sexual in conformity with the moral conventions of modern family life. In the nude properly achieved, the artist transforms the body's excessive and divergent sexuality into a vaguely eroticized aesthetic experience.

Like Basch, Lalo's sociological aesthetic relies heavily on a theory of subjective binding: a transformation of divergent sexuality into a principle of unification: "While it is has become a commonplace to repeat that we love with our whole soul," Lalo writes, "it is less known, but no less true, that we 'love with our whole body.'"[67] He cites the physiologist Dr. Roux in describing how localized (i.e., genital) sexual appetites are transformed into a more generalized "sexual hunger," and speculates (as do others in the journal) that the "secret" of this generalized desire has to do with the secretion of sexual glands, the circulation of sexual hormones, and the pressures they inflict on our nervous system at large.[68] While Lalo notes traces of this "intimate synthesis," in the writings of Volkelt (who distinguished between the sexual experienced as a "particular tendency" and a more generalized eroticism experienced as a "simple attitude of the self") – Lalo rails against the "new sentimentalism" in empathy theory for refusing to analyze the unity of aesthetic intuition.[69] He argues that understanding aesthetic intuition as a function of the

[66]Carolyn Dean suggests that Lalo was significant in shifting discussions of sexuality from a question of "what" is represented to a question of "how" they are represented – making way for a thinking about formal eloquence as a process of sublimation. Carlyn J. Dean, *The Frail Social Body: Pornography, Homosexuality, and Other Fantasies in Interwar France* (Berkeley: University of California Press, 2000), 92.
[67] Lalo, « L'Esthétique sans amour », *EN* n° 5, 494.
[68] «Les produits de la secretion interne de ces glandes exercent une action locale particulièrement intense sur les centre nerveaux, et agissent. . . une coordination neuro chimique nerveux ou cérébral et l'appareil reproductive. » Lalo, *La Beauté Et L'instinct Sexuel*, 39.
[69] Lalo « Le nouveau sentimentalisme esthétique », 443-451.

erotic begins only in the French sociological tradition with the French philosopher Jean-Marie Guyau, who characterizes aesthetic intuition as "always mixed with a desire more or less vague and refined."[70] In Guyau, Lalo finds the basis for understanding art as a radical homology between individual psychology and social consensus.[71] And yet, whereas Guyau locates this homology in aesthetic feeling, Lalo will argue that it is more a question of discipline and technique.

Lalo defines technique as a training of the body's excessive sexual energies within the socially sanctioned realm of the arts. "The artist is a man who plays with his sensitive impulses, but without passively obeying them: his first strength is freedom."[72] This advanced form of individual play also sustains moral hygiene at the collective level. There, it is a way of reproducing normative family life against unruly sexual tendencies.[73] Art does not simply censor these unruly passions, but rather creates a domain in which they can be "remembered" without breaching moral norms. In other words, art provides a frame, an "empty exercise" within which the subject can feel both its tendency towards erotic dispersion and its freedom in overcoming this dispersion through the organization of a work.[74] Sexuality, for Lalo, thus has little to do with the kinds of objects that appear within the works of art, nor the question, which he associates with Freud, of what they might signify as erotic substitutions. Rather, as Carolyn Dean points

[70] Ibid.
[71]On this characterization of Guyau, see Rosenblatt, "Empathy and Anaesthesia," 83.
[72] Lalo, « L'Esthétique sans amour », *EN* n° 5, 492.
[73] Art could therefore be, Lalo writes, "a kind of luxury necessary by the laws of sexual selection: an empty exercise and as a repetition of the piece that nature wants us to play; a learning of our normal role in the species general life." Ibid., 492.
[74]More recent accounts of artistic practice as controlled divergence are found in Leo Bersani's uses of Jean Laplanche in Leo Bersani, *The Freudian Body: Psychoanalysis and Art* (New York: Columbia University Press, 1986). Briony Fer has described the studio process of Eva Hesse through similar processes of self-shattering. Briony Fer, "Abstraction and abjection: Eva Hesse and conditions of making," lecture March 24, 2014, Institute of Fine Arts, NY.

out, the sexual for Lalo is a question of the eloquence of form "not the thing represented but in the writing through which is evoked."[75] Lalo's theory moved beyond the psychology of form to consider the processes by which form was achieved. In this respect, artistic technique is conceived as a tarrying with the quantitative excesses of the body. It is not a censorship of the primitive reproductive drives but rather a rechanneling of the drives into forms of activity morally sanctioned by the collective.[76] It is a compromise formation between inferior and superior stages of human evolution.[77]

Lalo's sociological aesthetics can thus be read as a theory of artistic sublimation, but one which engages cautiously with the field of Freudian psychoanalysis. On the hand, Lalo suggests that Freudianism leads to a "metaphysics of pornography" whereby all products of human labor consist of nothing more than substitutions for the original objects of sexual gratification.[78] Lalo's remarks on Freud, however, leave more of an opening than had many of his contemporaries. In France, he writes, Freud's "popularization was late and difficult" – owing to morals which "have polarized in an unfavourable way."[79] The extremes to which Lalo refers here are the moralist and pansexualist positions, the former for whom sexuality is refused, the latter for whom it is too pervasive. We might say that orthopedics for Lalo consists of finding a middle ground between these moralist and pansexual positions. Similar to Basch, this involves a

[75] Dean, *The Frail Social Body,* 92.
[76] "Art uses the numerous processes employed by the dreamer to mask the hidden satisfactions of his instincts. . . The result is a compromise protected from censorship: on the one hand the painful emotional states are elaborated in consciousness and put at the service of the form artistic; on the other hand, the prohibited pleasures are proven outside of censorship attacks." Lalo, *La Beauté Et L'instinct Sexuel,* 84.
[77] Lalo writes: "Just as every builder includes safety valves for high pressure, art is built into necessity. . . The purpose of aesthetic life is to socialize additional expenses which left to the individual would be occasion for perpetual anarchy. Lalo, *La Beauté Et L'instinct Sexuel,* 126.
[78] By locating these original "ideas fixes", Freudian analysis seeks to describe the complexes through which these censored objects are replaced by culturally acceptable symbols. While this characterization had been contested by Freud himself, it is nonetheless typical of the denigration of Freud's capacity to describe psychological process with the same scientific rigour constitutive of French medicine. On this debate, see Roudinesco, *La bataille de cent ans,* 275.
[79] Lalo, *La Beauté Et L'instinct Sexuel,* 87.

corrective administered at two opposing ends of the evolutionary spectrum. Where Basch interpreted these poles as failures to integrate body and mind, Lalo's social diagnosis divides between sexual degeneracy on the one hand and a moral "necropolis" on the other. Between the two, Lalo calls for a science of art in which sexuality can be given its precise frame: "Eroticism is neither the whole of art, nor its nothingness."[80] And while Lalo's essay in the journal provides the basic outline for such a psychoanalytic science, it is not until the latter years of the journal that this science is more fully articulated by the founding members of the *Paris Psychoanalytic Society*.

René Allendy: Psychoanalysis in France

In the last years of its publication, the scientific orientations of *L'Esprit nouveau* shifted notably. Where at first the editors drew mostly from elite academic establishments – recall that Charles Henry, Victor Basch, Charles Lalo all held prominent Chairs at the Sorbonne – these figures were later absent from journal, in some cases their promised articles left undelivered.[81] From what seemed to be a recreation of theses foundational to French aesthetics, the editors now turned to a succession of articles by a young and lesser-known psychoanalyst and homeopathic doctor named René Allendy.

Allendy presents the journal's most substantial reckoning with Freudian psychoanalysis. His articles appear during a brief period in which he helped to prepare the foundations for the French Psychoanalytic Society.[82] In 1922, along with his first wife, Yvonne Nel-Dumouchel,

[80] Lalo, *La Beauté Et L'instinct Sexuel*, 95.
[81] For example, in issue n° 9, an editorial note promises an essay by Lalo on "Fechner and experimental aesthetics" which never materializes. *EN* n° 9, 1075.
[82] Marion Michel Oliner, Cultivating Freud's Garden in France, (London: Jason Aronson Inc., 1988) 34-35; Roudinesco, *La bataille de cent ans*, 274-275.

Allendy formed the *Groupe d'études philosophiques et scientifiques pour l'examen des idées nouvelles* at the Sorbonne.[83] Meeting weekly at 9pm on Wednesday in an auditorium at St. Anne's hospital, the group was a testing ground for new and revolutionary ideas. Its aspiration, Allendy later recounted, was to "bring scientists and artists closer together, to break down the boundaries between different fields of knowledge."[84] Le Corbusier and Ozenfant were amongst the first to present on modern art and architecture. In their company was Paul Langevin, Chair in Physics at the College du France, who inaugurated the group with a lecture on Einsteinian relativity. The group also included a cohort of medically trained doctors working under the French neurologist and psychiatrist Henri Claude, who was then head physician of the *Clinique des Maladies Mentales* at St. Anne's.[85] Under Claude, the clinic had become the first medical institution in France to hire Freudian psychoanalysts onto its staff. And while the Paris Psychoanalytic Society was only formally established in 1926, it is often suggested that the *Groupe d'études* was the meeting ground in which psychoanalysis first gained substantial traction amongst the French medical establishment.[86]

Like Ozenfant and Le Corbusier, Allendy proclaimed the coming age as a new disciplinary "synthesis" of nearly two centuries of segregated scientific research. In similarly messianic terms, he described the moment as one in which new unifying concepts would emerge from the experimental sciences.[87] Indeed, it is significant that the *Groupe d'études* was

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[83] Jean-Pierre Bourgeron, "Allendy, René Félix Eugène (1889-1942),"in *International Dictionary of Psychoanalysis*, ed. Alain de Mijolla, vol. 1 (New York: Macmillan Reference USA, 2005), 45.
[84]Allendy described his wish to "to address various publics, to awaken curiosity and faith in the future of mankind." René Allendy "Neue Gedanken in Universitätskreisen" (New Thoughts in University Circles), *Europa Almanach*, ed. Carl Einstein, Paul Westheim, Wolfgang U Schütte and Lyonel Charles Adrian Feininger (Leipzig: Kiepenheuer, 1925), 241-244. Discussed in Liliane Meffre, « Carl Einstein à la Sorbonne. Avec une lettre inédite à René Allendy », *Études Germaniques* 241, no. 1 (2006): 81-86.
[85]Allendy describes his ambitions for the group, and lists its initial presenters in "Neue Gedanken," 241-244.
[86] See Roudinesco, *La bataille de cent ans, 371-372.*
[87]Allendy, *"Neue Gedanken," 243*.

inaugurated by a Chair in physics, not aesthetics or philosophy. Allendy rejected a (predominantly German) philosophical tradition that (as we encountered with Basch) built its scientific systems upon nuanced affiliations with the foundational Idealisms of Kant or Hegel.[88] By contrast, the *Groupe d'études* began with new and still experimental concepts, testing their explanatory capabilities against the rigors of French science. Just as Einstein's general relativity could reimagine *aether* as a mediating principle between force and matter, so too Allendy thought the Freudian unconscious could help to rethink the human subject as a profound combination of organic instincts and conscious ideation.[89]

Prior to the *Groupe d'études*, Freud's reception in France had largely been mediated by artists and writers.[90] His work was translated slowly, and French doctors were slow to consider it. This slowness would become notorious to Freud and his followers: "Among European countries, France has shown itself the least disposed to welcome psychoanalysis," Freud writes in his 1914 *History of the Psychoanalytic Movement.* [91] French resistances to Freud have largely been enumerated according to a range of suspicions levelled against him.[92] And whether pertaining to his mystical or mythological qualities, his perceived erotomania, or the fact that he was Jewish and German speaking (a "Kraut soul"), the underlying sentiment was that psychoanalysis had to be rationalized and systematized to satisfy the demands of French science. This sentiment was pervasive amongst the wave of medical writings on Freud which first began to proliferate in

[88]Allendy says of this philosophical tradition: "Many grounds are laid in the lecture halls. But on them no grass grows." Allendy, "Neue Gedanken," 243.
[89] "I have spoken of the search and use of a third between the old oppositions: Instinct between consciousness and physical matter, aether between force and matter. The arts all try to penetrate and shake the latent psychic of the individual. But only the future will realize the great synthesis of all great thoughts, which will then undoubtedly unite all intellectuals. Allendy, "Neue Gedanken," 243.
[90]Oliner, *Cultivating Freud's Garden in France,* 22-24; Roudinesco, *La Bataille de Cent Ans*, 46.
[91]Oliner, *Cultivating Freud's Garden in France*, 22-24.
[92] Roudinesco, *La Bataille de Cent Ans*, 274. For other accounts of this history see A. Ohayon, *L'impossible Rencontre. Psychologie Et Psychanalyse en France, 1919-1969* (Paris : Editions La Découverte, 1999), 66.

France around the year 1913. The year, recalled as a watershed, was marked by a now infamous lecture delivered by Pierre Janet at the *Seventeenth International Congress of Medicine* in London.[93] Janet begins his paper by recounting how Freud's insights had their origins in French psychiatry. In scathing terms, he then dissociates his own model of *psychological analysis* from Freud's, characterizing the latter as a "dogmatism" that grossly exaggerated the role of sexuality as a cause of mental disorders, producing nothing but "overgeneralizations" and "adventurous symbolisms" in its wake.[94] In his final blows, Janet describes psychoanalysis as a form of speculative philosophy, possibly a metaphysics, and one that would do well, he says, to give up its pretensions of being a medical science.[95]

Janet's policing of disciplinary boundaries is typical of Freud's French reception and will have echoes in Allendy's various comments surrounding the *Groupe d'études.* More than a simple question of German philosophy vs. French science, here we encounter an example of how nationalist and internationalist motivations coincide within the post-war French avant-gardes: for psychoanalysis to become useful to the project of an international modernist movement, it had to first become acceptable to the standards of French rationality: Cartesian, positivist, or otherwise. This process involves translations in both language and concept – but so too, and perhaps most pervasively, a form of disciplinary cleansing. For Freud to become palatable, his wildly speculative theories would have to be systematized and purified into what Allendy calls "a synthetic medicine." The question I ask is: how did Freud's appearance within *L'Esprit nouveau* perform, if not enact, such a purification?

[93] Roudinesco, *La Bataille de Cent Ans,* 251-254.
[94] Pierre Janet, "Address to the International Medical Congress," (London: Henry Frowde, 1913).
[95] Ibid.

Some further aspects of Freud's reception in France will help situate Allendy's contributions to the journal. Again, it bears remembering that many of the central tenets of psychoanalysis are born from Freud's engagements with French psychiatry: above all, his mentorship in 1885-86 under the famed neurologist Jean-Martin Charcot. During this time, Charcot's studied hysteria as "expressing," in the form of bodily symptoms, certain biological abnormalities that remained hidden within the human organism. While Freud inherits from Charcot this newly semiological (i.e., sign reading) approach to medicine, he departs dramatically from Charcot when claiming that the sources of mental pathology are not organic (and therefore hereditary) but rather found in an experience of the body that is unconsciously ideational and largely predicated on memory.[96] When famously suggesting that "[h]ysterics mainly suffer from reminiscences," Freud and his colleague, the physician Josef Breuer, radically reversed the tides of French psychopathology, claiming that it is not the human anatomy which is sick, but rather a fictive and malleable phantasm of this anatomy produced in the aftermath of traumatic experience. In other words, a psychological symptom is not the "expression" of an underlying biological condition but rather a "conversion" of biological conditions whose psychic manifestations are determined by a dynamic interplay of associations, memories, inhibitions, etc.

This foundational rupture makes the Freudian unconscious an affront not only to Charcot but also to a range of commitments held dear within the French medical establishment. For instance, if mental illness is not located in a racial and hereditary organism, the lines between

[96] Pontalis writes: "Freud will have to recognize in the conversion (spatial metaphor) not, as it has been believed, the actually prevalent form of hysteria, but the model of its mechanism, whether or not it has somatic symptoms; this supposes precisely that a conversion is operated in the approach and the treatment of hysteria: the springs will no longer be sought directly in the places of the body but in the arrangement of the fantasy with its propers spatio-temporal laws, no longer in the gestural and fixed picture but in the variable, multiple and hidden identificatory positions." J.-B Pontalis, « Le séjour de Freud à Paris » *Nouvelle revue de psychanalyse* 8 (1973): 238.

normal and pathological become harder to detect, much less to theorize as the basis for social evils such as perversion, alcoholism, or degeneration. Even more radically, Freudian theory suggests that the trauma of precocious sexuality is a common and structuring feature of the human psyche, and that sexual perversity, which had been mapped out by 19th-century psychiatry as varieties of the marginally sick, were a common experience that needed to be studied in all their diverse manifestations. Shifting from a pathological to an anthropological approach, Freud saw himself lifting the conventional moralisms then clouding medical discourse around sexuality.[97] In his conception of the libido (in Latin, simply meaning wish or desire) he attempted to theorize a universal principle grounded in the specificity of each individual and the permutations of its instinctual life. Again, contrary to Charcot and his followers, Freud argued that the individual life should not be studied as the "expression" of an underlying physiological instinct that can be classified as normal or pathological, but rather as the site of countless "conversions" of the instincts as they undergo various structural transformations relative to their aims, objects, and sources of excitation.[98] In substituting the 19th-century notion of physio-biological instinct with that of "drive" (*Trieb),* Freud hypothesized what he called "a concept on the frontier between the mental and somatic: a psychic representation of stimuli originating in the organism and reaching the mind as a measure of the demand made on the mind for work in consequence of its connection with the body."[99] In other words, libido describes not so much the persistence of an underlying quantity of physiological energy but rather the "dynamic manifestation" of this energy in mental representations.[100] Freud will develop several conceptual

[97] Arnold Davidson, *The Emergence of Sexuality : Historical Epistemology and the Formation of Concepts* (Cambridge, Mass.: Harvard University Press, 2001), 80.
[98] Ibid.
[99] Sigmund Freud, "Instincts and Instincts and Their Vicissitudes," in The Complete Works of Sigmund Freud, trans. James Strachey (London: Hogarth Press, 1957),122.
[100] See Ellenberger's situating of Freudian psychoanalysis with reference to previous philosophical and psychophysiological thinkers, including Fechner and Herbart in Henri Ellenberger, "Fechner and Freud" in *Beyond*

models to describe these dynamics. However, foundational to his thinking is the postulation of an active and ideational unconscious at the threshold between body and mind.

The Freudian unconscious presents a challenge to French science. The most illuminating scholarship on this fact points towards the radically new conceptual space that it demanded in thinking about individual personhood. Jan Goldstein refers to the history of the Lycée philosophy curriculum (a requirement for all university educated Frenchmen), in showing the persistence of the *moi intérieure,* a notion of a unified and willful subject that was the legacy of early 19th-century Christian eclecticism.[101] Freud's remapping of the psyche, Goldstein argues, enacted the most systematic challenges to the orthodoxy of the unified subject, claiming it to be a necessary egoistic fantasy, but one that could hardly explain, with sufficient depth or dynamism, the complex interplay between body and mind. By placing the dynamism of the unconscious at the centre of his new science, Freud reimagined the individual as an interface between a non-linguistic, energetically quantitative instinctual body and an ideational psyche.[102]

Janet was the most prominent of French thinkers to resist this model and its consequences. In his 1913 address, he called the Freudian unconscious simply "a manner of speaking," and one which could be easily substituted for his own preferential term, the "subconscious." However, this substitution was a scandal to Freudians, since Janet had long maintained the subconscious to be a negative principle, describing little more than mechanical manifestations of the mind in a state of decreased tension (including sleep, automatism, hypnosis, etc.).[103] By contrast, the Freudian unconscious was theorized, again, as a profoundly

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the Unconscious: Essays of Henri F. Ellenberger in the History of Psychiatry, ed. Mark Micale (Princeton: Princeton University Press, 1993) 89-103.

[101] Jan Goldstein, "Neutralizing Freud: The Lycée Philosophy Class and the Problem of the Reception of Psychoanalysis in France," Critical Inquiry 40, no.1(2013): 40–82.

[102] See Goldstein's brilliant description of this dynamic as a chiaroscuro effect. Jan Goldstein, "Neutralizing Freud," 82.

[103] A helpful discussion of this negative conception of the unconscious can be found in Sonu Shamdasani,

active and dynamic principle, tasked with the work of endlessly formulating psychic representations from a continuous flow of somatic stimuli. And while Janet seemed content to paper over this difference, already by 1913 a growing number of French doctors saw the promise in this Freudian alternative.[104]

Immediately prior to Allendy and his circle at the *Groupe d'études,* there is a brief but consequential period in French medical writings on Freud. Two Bordeaux psychiatrists, Angelo Hesnard and Emmanuele Régis, authored a series of landmark publications. Marked by their ambivalence, they acknowledge the novelty in Freud's "conception psycho-dynamiques du sentiment," while defending its psychiatric potential in creating a new "mechanics of the mind."[105] They engage far more than Janet with Freud's central etiological concepts, noting their progressivist turn from "extreme and simplistic theories of [hereditary] degeneration" towards the events of "individual instinctive development."[106] At the same time, Régis and Hesnard are uneasy about the centrality of sexuality in Freudian theory. They cite the Zurich-based psychiatrist Eugene Bleuler in confronting Freudian "pansexualism," and consider how the Freudian libido might be expanded into a more general category of instinctual life: [107]

> Could we not imagine a psychology, quite analogous to Freud's in his psychodynamic conceptions and in his applications to the affective theory of neuroses, a psychology in which the instinctive energy of the affect would be expressed through various modes – sense of reality, filial love, parental tenderness, etc. – which would not be called sexual?[108]

"Encountering Helene: Theodore Flournoy and the Genesis of Subliminal Psychology," in Theodore Flournoy, *From India to the Planet Mars: A Case of Multiple Personality with Imaginary Languages*, ed. Sonu Shamdasani (Princeton, N.J.: Princeton University Press, 2015), xli.

[104] Following Flournoy, who was amongst the first to welcome the dynamism of the Freudian unconscious, two Bordeaux psychiatrists Angelo Hesnard and Emmanuele Regis publish several essays on the topic. See Angelo Hesnard and Emmanuele Regis, *La doctrine de Freud et De Son École* (Paris: Delarue, 1913).

[105] Ibid., 548.

[106] Roudinesco, *La Bataille de Cent Ans*, 271-273

[107] The term comes from a 1911 paper by Swiss Psychiatrist Eugene Bleuler. See Régis and Hesnard, *La Doctrine De Freud*, 368.

[108] Ibid., 548.

The question posed here by Régis and Hesnard will have important echoes throughout the following decade. Indeed, French doctors repeatedly attempted to bypass the transformations of the sexual instinct that were central to Freud's theorization of the unconscious. A 1924 collection of essays in the Belgian review *Disque Vert* contains a recurring refrain against the disgraces of Freudian "pansexualism," its authors often resituating the unconscious within terms more familiar to French science. Régis and Hesnard are amongst several others to enlist the Swiss psychoanalyst Carl Jung in rethinking the Freudian libido in terms more compatible with Bergson's élan vital – i.e., as a principle of life manifesting in all dimensions of active and willful activity.[109] According to Goldstein, this Bergsonian-inspired tradition was but one of the various ways Freudian theory was "neutralized" to accommodate the philosophical conventions of the "moi intérieure."[110]

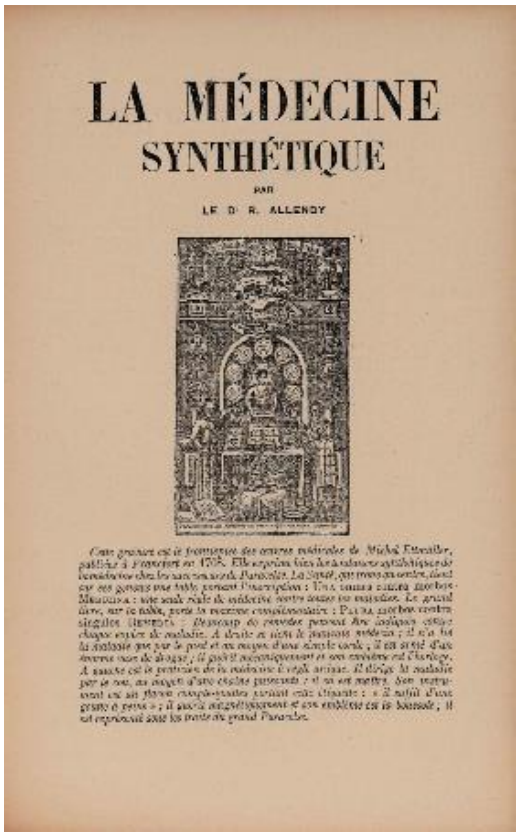
The translation of Freud into French is thus marked by a number of conceptual substitutions and amendments. As we turn now to Allendy's writings for *L'Esprit nouveau*, it is important to have these various translations and substitutions in mind and to understand the effort to resituate the Freudian unconscious within terms more palatable for the French scientific imagination. Indeed, we shall see that Allendy, although eccentric in his medical orientations, in many ways represents a continuation of Régis and Hesnard's efforts to generalize the Freudian libido into a more generalized principle of life, energy, and force.

[109] In his defense of Freud in response to Janet's lecture at the 1913 Congress, Jung nonetheless agrees with the generalization of libido as élan vital. See Roudinesco, *La Bataille de Cent Ans,* 233-235, 239-241.
[110] Goldstein, "Neutralizing Freud," 40–82.

René Félix Eugène Allendy (1889 - 1942), born into the home of a shopkeeper in Paris, contracted bronchial pneumonia at the age of three, and spent his early childhood undergoing various treatments.[111] He received a highly coveted education at the Collège Saint-Joseph and pursued interests in both the Humanities and Medical Sciences before graduating from the Paris medical school in 1912, with a Dissertation entitled "L'Alchimie et la Médecine."[112] His interest in alchemy and homeopathic medicine remained a constant in subsequent works on Paracelsus and Numerology, and it informed his orientations within the emerging field of psychoanalysis.[113] But for his brief role as an analyst to Antonin Artaud and Anais Nin, and for his second marriage to an important gallerist named Collette Nel-Dumouchel, his writings would have been all but forgotten.[114]

Allendy's first article for *L'Esprit nouveau*, entitled *« La Médecine Synthétique* », has as its epigraph the frontispiece from Michel Ettmüller's 1708 *Opera medica theoretico-practica*.[115] The image, Allendy writes in the caption, expresses the "synthetic tendencies of medicine in the successors of Paracelsus."[116] The figure of Health is seated at the center, flanked by two opposing doctors who stand above a figure of disease crawling at their feet. Carrying a large vase of drugs, the bad doctor holds onto disease with a simple rope tied to his foot: "he cures mechanically," the caption writes, "his emblem is the clock."[117] The good Paracelsian doctor, by

[111] Bourgeron, "Allendy, René Félix Eugène (1889-1942)," 45-47.
[112] René Allendy, "L'Alchimie et la Médecine," (MD-PhD diss., University of Paris, 1912).
[113] René Allendy, *Paracelse: Le Médecin Maudit* (Paris, Gallimard, 1937); René Allendy, *Le Symbolisme des Nombres: Essai d'Arithmosophie* (Paris: Éditions Traditionelles, 1948).
[114] Bourgeron, "Allendy, René Félix Eugène (1889-1942)," 45. He is cited briefly in Gaston Bachelard, *The Formation of the Scientific Mind, trans.* Mary McAllester Jones (Avon: Bath Press, 2002), 137.
[115] René Allendy, « La Médecin Synthétique », *EN* n° 13,1455.
[116] Ibid.
[117] Ibid.


LA MÉDECINE
SYNTHÉTIQUE
PAR
LE D^R R. ALLENDY


MICHAELIS ETTMULLERI OPERA MEDICA
FRANCOFURTI AD MOENUM EX OFFICINA ZUNNERIANA. ACIDCCIIX

FIGURE 2.2. Frontispiece to Michel Ettmüller's *Opera medica theoretico-practica* (1708). Reproduced in René Allendy, « La Medicine Synthétique », *EN* n°13, 1455.

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contrast, holds onto disease with a chain to the neck ("he is master"), and carries a small dropper bottle bearing the inscription "one drop is enough."[118] He "heals magnetically and his emblem is the compass."[119] With this allegory, Allendy introduces many of the themes advanced within his dissertation on « *L'Alchimie et la médecine* ». He denounces modern medicine for having become overly specialized. Allendy's essay lays the foundations for a wholistic critique of psychoanalysis, which, like the bad doctor in the frontispiece, has strayed from the scientific simplicity of its discoveries. Stuck at a so-called etiological impasse, it approaches mental

[118] Ibid.
[119] Ibid.

illnesses by way of its micrological, if not simply microbiological, causes.[120]Against these myopic tendencies, Allendy wants to reclaim for psychoanalysis the "possibilities for a marvelous synthesis."[121] He writes: "The movement is starting, in all human activities: psychology joins psychism and occultism in the study of the subconscious and the unity of the Self through successive lives."[122] Here, Allendy sounds more like Janet than Freud in writing of the *subconscious* instead of the *unconscious,* and a unified "Moi" whose variability follows Janet's model of temporal "succession" rather than the more spatialized Freudian topography.[123] While these distinctions will receive greater attention in later contributions to the journal, here Allendy's interest is simply to assert a field of therapeutic practices that approach the individual through a "complex of symptoms" affecting the whole person. [124]

In his second contribution to the journal, a two-part essay entitled « *La Constitution de la Matière* », Allendy establishes a continuity between alchemy, natural science, and psychoanalytic medicine. Alchemy searches for a unifying principle uniting all human endeavors within a single "science of life." Allendy locates the same principle in the insight, now being developed by modern physics, "that matter and force are but one."[125] Six pictorial diagrams introduce the essay, each modeling different theories of sub-atomic structure. These hypotheses share a conception of energy not as a property superimposed on inert simple matter, but rather as an aggregate of elementary electric charges constitutive of matter itself. In ways subtly continuous with the argument in « *La Médicine Synthétique* », Allendy reiterates the centrality of the complex, here further defined as an organization of positive and negative charges. "Matter,"

[120]Ibid., 1457.
[121]Ibid., 1456.
[122]Ibid., 1457
[123] On the origins of this distinction, see Ellenberger "The Discovery of the Unconscious," 145-147.
[124] Allendy, « La Médecin Synthétique », 1458.
[125] Allendy, « La Constitution de la Matière », *EN* n°14, 2040.

Allendy writes, "is dynamic; the atom an incredible reservoir of electric energy . . . This idea is accepted more and more. It has immense philosophical consequences."[126] While Allendy is somewhat cursory in suggesting what these consequences might be, he clearly wants to assert the importance of energy within the field of psychoanalytic thinking. He concludes: "Let us notice how much this matter is linked to pure force, to this force which we call, in its noblest aspects, the spirit."[127]

The tailpiece to Allendy's essay is an illustration of a single-celled organism, with protozoa protruding outward from an enclosed shell.[128] The uncaptioned image suggests that life is at once hermetically self-enclosed while also extending into its surrounding environment. Allendy's shell, like Le Corbusier's, is a metaphor for both a principle of unity and for the dynamic center of "centrifugal" expansion.[129] I read the image as a rhetorical placeholder between the sub-atomic compounds described at the outset of the article and the psychoanalytic complexes to be described in future articles.

Allendy's subsequent contribution, co-authored with Réné Laforgue, is entitled « *Le conscient et l'inconscient*. » This work, Allendy's most consequential, lays out the conceptual paradigm for how Freudian concepts are to be adapted to the more systematic rigours of modern energy science. In health and sickness, argue Allendy and Laforgue, we are constituted by the staying power of certain attractions and repulsions formulated in childhood. In this primal and relatively inaccessible phase of affective development, an unconscious psyche is "formed and fixed" by diverse and often conflicting experiences of love, affection, competition, aggression,

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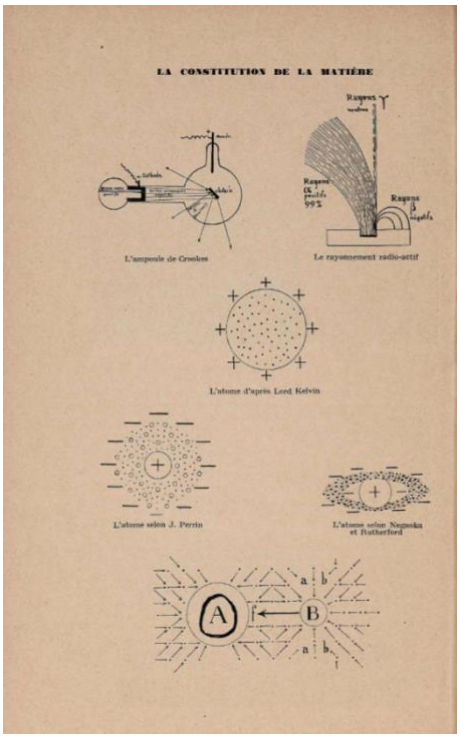
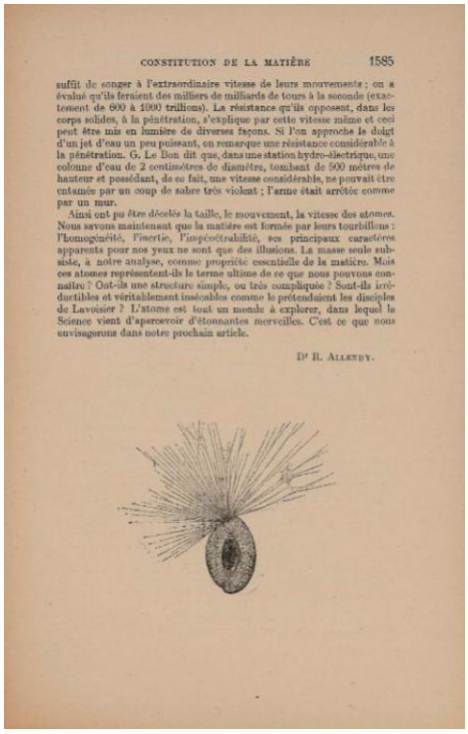
[126] Ibid.
[127] Ibid., 1585.
[128]The image concludes both first and second parts of the essay. Francis Arthur Bather, *A guide to the fossil invertebrate animals in the Department of geology and palaeontology in the British museum (London: British Museum, 1907), 16.*
[129]Allendy uses the term when describing radio activity: "The radio-activity would result from an excess of centrifugal force." Allendy, « La Constitution de la Matière », *EN* n° 18, n.p.

etc. These "modalities," they write, are "indefinitely nuanced": "Just as, in the evolution of the species, instinct developed and continued to perfect itself before intelligence, so, in ontogeny, the development of the unconscious appears to be accomplished very early in childhood and to precede that of conscious thought."[130]




CONSTITUTION DE LA MATIÈRE 1585

suffit de songer à l'extraordinaire vitesse de leurs mouvements : on a évalué qu'ils feraient des milliers de milliards de tours à la seconde (exactement de 600 à 1000 trillions). La résistance qu'ils opposent, dans les corps solides, à la pénétration, s'explique par cette vitesse même et ceci peut être mis en lumière de diverses façons. Si l'on approche le doigt d'un jet d'eau un peu puissant, on remarque une résistance considérable à la pénétration. G. Le Bon dit que, dans une station hydro-électrique, une colonne d'eau de 2 centimètres de diamètre, tombant de 500 mètres de hauteur et possédant, de ce fait, une vitesse considérable, ne pouvait être entamée par un coup de sabre très violent ; l'arme était arrêtée comme par un mur.

Ainsi est-on forcé à la taille, le mouvement, la vitesse des atomes. Nous savons maintenant que la matière est formée par leurs tourbillons : l'homogénéité, l'inertie, l'inséparabilité, ses principaux caractères apparents pour nos yeux ne sont que des illusions. La masse seule subsiste, à notre analyse, comme propriété essentielle de la matière. Mais ces atomes représentent-ils le terme ultime de ce que nous pouvons connaître ? Ont-ils une structure simple, ou très compliquée ? Sont-ils irréductibles et véritablement insécables comme le prétendaient les disciples de Lavoisier ? L'atome est tout un monde à explorer, dans lequel la Science vient d'apercevoir d'étonnantes merveilles. C'est ce que nous envisagerons dans notre prochain article.

Dr R. Allendy.

FIGURE 2.3(left) Illustration of sub-atomic compounds. Reproduced in René Allendy, « La Constitution de la Matière », *EN* n° 18, n.p.

FIGURE 2.4 (right) Illustration of a single-celled organism with protozoa protruding. Reproduced in René Allendy, « La Constitution de la Matière », *EN* n° 14, 2040.

Similar to the energetic makeup of sub-atomic compounds – again, newly defined as a magnetism of positive and negative charges – Allendy and Laforgue describe a subject who is constituted by unconscious attractions and repulsions, in dynamic interplay with the conscious

[130] René Allendy and René Laforgue, "Le Conscient et L'Inconscient", *EN* n° 21, n.p.

mind.[131] Allendy conceives of these organizations, described as "complexes," as a form of psychic synthesis: they refer to phases of dynamic stability achieved in the process of human subject formation.

Allendy believes that these developmental complexes "formed and fixed" in childhood, can nonetheless undergo important transformations. Like material compounds, our psychic syntheses can be altered as the result of new organizational features.[132] The therapeutic function of psychoanalysis, for instance, is to convert certain unconscious associations into conscious associations, and to thereby alter their structural position within the overall dynamics of psychic life. In other words, while one may not be able to intervene directly with the affective associations that constitute our primal instincts, Allendy thinks that psychoanalysis can gain insight into these formative associations and help the individual to navigate the conflicts that they express as symptoms of illness.

For Allendy, the therapeutic function of psychoanalysis thus lies in its capacity to treat the individual who suffers as the result of energetic conflicts. A common and frequently cited example of this occurs when a positive instinctual attraction is countered by a negative societal censorship – thus rendering the subject incapable of action. While the legacy of Freudian hermeneutics enables a closer reading of unconscious tropisms (i.e., via the symbolic associations they produce within our conscious life), a more "synthetic" version of psychoanalysis consists of further systematizing these tropisms into a kind of spiritual mechanics.[133] Quoting Henri Bergson, Allendy and Laforgue say that the psychologists of the

[131] "In the end, this way of being will only be translated by attractions or repulsions, in given circumstances, such as a positive or negative tropism." Allendy and Laforgue, « Le Conscient et L'Inconscient », *EN* n°21, n.p.
[132] In the tradition of 19th-century chemistry, synthesis refers both to a principle of relative stability, but also to a capacity for change. See Brain. *Pulse of Modernism,* xxv.
[133] "Since the unconscious creates tendencies and tropisms, we must look for the play of these tropisms in the very functioning of conscious thought, in the same way that Leverrier looked for the influence of the invisible Neptune in the disturbances of the visible Uranus. Allendy and Laforgue, « Le Conscient et L'Inconscient », *EN* n° 21, n.p.

coming century will work in the "basement of the mind."[134] They will be, as the image suggests, the humble and unseen workers whose subtle manipulations generate possibilities for greater production in the life above. Allendy and Laforgue further draw upon Bergson when saying that the unconscious should be seen both as a *mysterious power* and a *vital energy*:[135] "Freud renewed this idea under the name of the Libido . . . We might well also call it a vital tropism."[136] This consequential moment in their text demonstrates how Freud is being translated, both linguistically and conceptually, for the readers of the journal. Within the space of two short sentences, Freud's libido and its perceived emphasis on sexual excitement is exchanged, cleansed we might say, for the more abstract and palatable notions of energy and force. This substitution will continue in later articles, where Allendy makes Freudian sexuality into something broad and abstract – "in the manner of a great metaphysical principle"– and again with the implication that the psychoanalytic discipline must shift from the etiological study of sexuality in the field of subject formation to the question of energy formation and its proper flow.[137]

The healing capacity of psychoanalysis is further described by Allendy and Laforgue as a "purification." Beyond diagnosing psychic conflicts and their adverse effects, the discipline, they claim, can redirect, and sometimes radically transform, energy from one form of activity into another.

> In more favorable cases, a conscious effort succeeds in sublimating unconscious tendencies, replacing their primary, dangerous and immoral expression for an inoffensive and praiseworthy diversion. They must be transformed into that noble and ideal thing which the

[134] Ibid.
[135] Ibid.
[136] « Freud a renové cette idée sous le nom de Libido. On pourrait tout aussi bien l'appeler tropisme vitale. » Elsewhere, Allendy and Laforgue also write: "Freud has been strongly reproached for giving too much importance to sexuality in his theories, but to the extreme that the conception of sexuality is something infinitely more comprehensive than mere genitality . . . It would seem that the genital function which is in fact the capital function, the function of reproduction, the instinctive gift by definition, can not be touched without the whole personality of the individual being affected." Ibid.
[137] René Allendy, « La libido», *Le Disque vert*, numéro spécial « Freud », (Paris-Bruxelles, 1924)38-43.

> old alchemists proposed for their disciplines as the Great Spiritual Work. Such a sublimation is the principal motor of humanity.[138]

This is another striking formulation, neatly reframing the spiritual pursuits of the alchemists within the motoric paradigm of modern energy production. Moreover, it is through this so-called purification of instinctual energies, argue Allendy and Laforgue, that psychoanalytic science comes into its closest alliance with the arts:

> Art puts within the reach of a subject the most unexpected realizations of a secret dream; literature allows him to be king, minister, slave or executioner, God or Mephisto, man or woman, according to his desire; sculpture, painting materialize and subtilise the most complex affinities. The lyric poetry, with its voluptuous nostalgia, is a perfect equivalent of the sterile swoons in which so many young effeminate neurotics consume themselves.

Note here the way that Allendy and Laforgue describe the salutary functions of sublimation. Sublimation is not simply a matter of substituting one object of desire for another; rather, defined wholistically, it is function of the binding of a subject whose energies have been diverted from baser instincts, towards the more elevated pursuits of human culture. Allendy and Laforgue are similar to Charles Lalo in approaching these transformations, not from the vantage of the cultural objects that they manufacture, but, rather, by focusing on the new forms of syntheses which they make possible. Like Lalo, they ask: Who are the new subjects produced by aesthetic discipline? And what can their constitution teach us about health and vitality – here defined as a dynamic and productive energy economy?

[138] « Dans les cas les plus favorables, l'effort conscient réussit à sublimer les tendances inconscientes, c'est-a-dire à remplacer leur réalisation primaire, dangereuse et immorale, par une réalisation détournée, inoffensive et méritoire. . . Il faut seulement la transmuer en quelque chose de noble et c'est idéal que les vieux alchimistes proposaient à leurs disciples en leur enseignant le Grand Oeuvre Spirituel. Une telle sublimation est le principal moteur du progrés humain. » Allendy and Laforgue, « Le Conscient et L'Inconscient », *EN* n° 21,148.

Allendy's later articles only further specify the remedial function of psychoanalysis, describing and classifying the complex structures through which energy is "blocked" or "short circuited" within modern life. He lays out a few familiar schemas for thinking about these psychic conflicts – noting their most common manifestations in the population at large. Most important amongst these is *neurosis*, which Allendy defines as a condition of "moral suffering" expressing a conflict between the conscious will and the unconscious tropisms.[139] "The tree of science,"Allendy writes, "has this suffering as its fruit, and is the legacy of humanity par excellence."[140] Allendy then classifies neurosis into two main categories, hysteria and neurasthenia, each of which distinguish two "ways of pathologically reacting to psychic shocks."[141] Allendy's descriptions assume a common gender binary: While for hysterics, mostly women, psychic conflict is expressed through the acting out of an "emotional physicality" – described as "unstable, poorly adjusted, uncoordinated, scattered and with an infantile and changing mentality" – neurasthenia, affecting mostly men, is much more subtle and innocuous.[142] It is a general malaise, an "impuissance," in which the subject withdraws and loses the ability to adapt to the situation in which the psychic shocks first appeared.[143] It is this spiritual fatigue which manifests for Allendy as an "epidemic of the will."[144]

With these classifications, we see Allendy's diagnosis of a culture that suffers from the mismanagement of its instinctual energies. Allendy's discussions of neurasthenia are particularly extensive, revealing a concern with energy hygiene described by Anson Rabinbach as pervasive to French modernism within the Third Republic (1870-1940).[145] According to Rabinbach, these

[139] Ibid.
[140] Ibid.
[141] Ibid., 454.
[142] ". . . instable, mal lié, incoordonné, éparpillé, avec une mentalité infantile et changeante." Ibid., 456.
[143] Ibid., 455.
[144] René Allendy, « La Nervose », *EN* n° 24, 451.
[145] Rabinbach, *The Human Motor*.

anxieties appeared in the aftermath of defeats suffered in the Franco-Prussian war, as concerns over masculine virility, merging with new urban spectacles of mass alcoholism and unemployment, transformed into concerns over industrial production. A new "calculus of fatigue and productivity," argues Rabinbach, resulted in a "a constellation of science and politics concerned with the laboring body."[146] In Allendy's approach to psychic conflict as problem of energy and its proper flow, I suggest that we find a uniquely systematic elaboration of these new anxieties and preoccupations. Combining alchemy and modern energy science, Allendy's contributions to *L'Esprit nouveau* produce a psychoanalytic vocabulary for rethinking the human subject as a problem of energy and production.

Finally, then, at the level of orthopedics, we might observe how Allendy conceives of art and psychoanalysis as the allied inheritors of an alchemical "science of life." Replacing the centrality of Freudian sexuality with a more generalized principle of Bergsonian vitality, Allendy treats the body, above all, as a complex of forces. Whereas pathologies are defined as dysfunctions within the field of energy flow, health is epitomized by the artist who is able to sublimate instinctive impulses, transforming them within the spaces of collective cultural production. Within this model, ideas around "purism" and "purification" refer not to an optics but, rather, again, to a kind of spiritual mechanics. In Allendy's rendering, the psychoanalyst becomes a kind of occult engineer, one capable of redirecting primal energies towards their maximum spiritual growth. Where bodily matter is newly conceived as a reservoir of force, art and psychoanalysis are similarly defined as vocations of motoric conversion.

[146] Ibid., 23.

CHAPTER THREE: CONSTRUCTION

FIGURE 3.1 Georges Seurat, *Jeune femme se poudrant,*1890,
oil on canvas, Courtauld Gallery, London. Reproduced in *EN* n°1, n.p.

Puzzling, this first image of *L'Esprit nouveau*: George Seurat's *Jeune femme se poudrant,* of 1890. A woman perches at a rococo table-stand, her contours verified by lace and shadow. Behind her, a bamboo frame opens to a table-corner that has been set with potted flowers. Though not immediately clear whether it is a picture, a window, or a mirror, the aperture generates an air of directional looking: we as viewers of the painting observe the potted flowers, which themselves retain a curious vantage onto the scene. To these dynamics are added, more subtly though no less tonally punctuated, the woman's oval table-mirror and two oblique and side-cast eyes. The woman's brush anchors the whole scene by circulating from perfumed jars below, a floral effusion of powdery light. The image gives off a whiff of an older and more

decorative ambience, and one that comes unexpectedly in a journal foretelling of industrial futures.[1] Surprising is a toilet scene for the launching of a new aesthetic regime.

The puzzle of Seurat's *Jeune femme* is further compounded by the history of x-ray science, which now confirms longstanding suggestions that, prior to its 1890 exhibition at the *Salon des Indépendants,* the work included Seurat himself peering out voyeuristically through the back-wall mirror.[2] This substitution (of the potted plant for Seurat) became a topic of consideration in the early 1920s.[3] Asking about the decisions that characterized this still relatively unacknowledged master, critics asked: would it have been too fanciful, and thus more in the spirit of the symbolist Gaugin, to see the artist himself lurking back into the composition? [4] And was it not, therefore, in keeping with what the 1920s art historian Robert Rey called the artist's "serene meditation" that his own visage be removed, and the entire composition organized around the central patterns of light in which, again quoting Rey, "soft shade agglomerates like a magnet"[5]? I find it significant that this image is, visually speaking, the single note out of which the entire program of *L'Esprit nouveau* unfolds: with its forms, solid yet effusive, and with a painter who has erased himself from the scene of his own painting.[6] How might this image serve as an opening onto the journal's affinities for Seurat? And what can these affinities tell us about the journal's aesthetic program more generally?

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[1] A discussion of the *decorative* as a historical concept in French aesthetics appears in T. J. Clark, *Farewell to an Idea: Episodes from a History of Modernism* (New Haven: Yale University Press, 1999).
[2] Aviva Burnstock,and Karen Serres, "Seurat's hidden self-portrait," *Burlington Magazine* 156, no. 1333 (2014): 240-242.
[3] According to anecdotes relayed by the curator and critic Robert Rey, who in the early 1920s interviewed the surviving members of the Neo-Impressionist circle, the self-portrait of Seurat as onlooker-painter was replaced in the lead-up to its 1890 exhibition under pressure from a disagreeable friend. These studies were later published in Robert Rey, *La Peinture Français a La Fin Du Xixe Siècle : La Renaissance Du Sentiment Classique. Degas-Renoir-Gauguin-Cézanne-Seurat*, (Paris: Beaux-Arts, 1931).
[4] TJ Clark describes the moment of this painting as approaching a *watershed* between symbolist and neoimpressionist camps. See TJ Clark, *Farewell to an Idea*, 129.
[5] Rey, *La Peinture Français*, 128-129.
[6] *Ibid*.

In the following chapter, I read the journal's affinity for Seurat as an opening onto a larger set of values tested under the category of construction. In the first section, I provide a conceptual overview of the various ways construction is taken up in the journal. I focus on the subject form « le constructeur » as a way of suggesting Seurat's exemplary status as a "viable type." With this designation, I propose that we understand Seurat (amongst other exemplary constructors), as a new and scientifically informed variation of the Romantic genius: a figure of the artist that doubles as a normative standard of health and hygiene. In the second section, I explore how this exemplary status is described in Roger Bissière's « *Notes sur l'art de Seurat* ». The essay is revealing, I suggest, on account of the psychological processes assumed by Bissière's criticism. I address how Bissière characterizes Seurat's métier as painter, and the effects his works have on their viewer. In the third and final section, I turn to the psycho-physiological research of Charles Henry as a way of understanding the science underpinning Bissière's criticism. I present terms to engage Seurat's status as an exemplary figure of health and hygiene.

Seurat: « Le Constructeur »

I want to begin by proposing that the journal's discourse around Seurat – here positioned crucially at the very opening of the journal – is a decisive response to the question of how, and with *whom*, to begin. This is a question about kinship: an assertion of one's artistic, philosophical, and scientific parentage. Sometimes described as a defining feature of the modernist project, note that for the journal's collaborators no less, such parentage takes many forms.[7] Important figures are conceived as "foundation-layers," preparing the grounds for a

[7] For a discussion of the difference between avant-garde and modern that hinges on this question, see Marshall Berman, *All That Is Solid Melts into Air: The Experience of Modernity* (New York: Viking Penguin, 1988).

future building.[8] In other cases, the relevant ancestors are simply characterized as "purveyors of the classical."[9] One critic imagines artistic lineage as walking through a National Museum, where each relevant predecessor is allotted his own gallery.[10]

Where recent history is concerned – in particular, late 19th and early 20th-century painting – arguments about kinship are particularly combative.[11] For many in the journal, the figure of Cézanne looms as an obvious choice. But it is Seurat, and very consciously Seurat, that the editors endow with the almost Saint-Simonian task of prophesying the future aesthetics.[12] In their 1918 *Après le Cubisme*, Le Corbusier and Ozenfant had framed their first conception of a post-war *retour à l'ordre* against the un-loosening tendencies that had pushed the pre-war cubists to their pictorial extremes.[13] Their allegiance to Seurat relied upon a growing conception of Cézanne as forerunner to this generation and what they saw as being its misguided "analytic" tendencies. Cézanne represented a tragic figure: brilliantly responsive to planar geometries but erring in a methodology that derived these geometries through an analysis of fleeting sense perception, registered in painterly "stains." To the journal's editors, these techniques represented the uncomfortable legacy of Impressionism, whose undoing of solid and well-defined forms was

[8] Jean Epstein, « Le phénomène littéraire », *EN* n° 9, 969.
[9] An example of this classical vision can be found in Gino Severini, « Cézanne et le Cézannisme », *EN* n°11-12,1257-66.
[10]Roger Bissière, « Notes sur l'art de Seurat », *EN* n°1, 28.
[11] A striking example of this polemical tone can be found in an exchange of letters between Gino Severini and Le Corbusier, writing under the pseudonym de Fayet. The latter writes: "I was wrong to attach importance to Mr. Severini's little work, the naive work of a man of forty, who discovers, with amazed surprise, descriptive geometry and elementary perspective, and who proclaims, by announcing his discovery, that he brings salvation to the workshops." de Fayet, « Reponse de Monsieur de Fayet », *EN* n° 17, n.p.
[12] Claude Henri de Rouvroy, comte de Saint-Simon (1760 –1825): A businessman and social and political theorist whose disciples in the 1820s and 1830s advanced a conception of the artist as a guiding figure within advanced industrial society. Neil Mcwilliam writes: "As attention toward the interplay of class groupings convinced him of the need for a mechanism capable of rallying all sectors behind the enlightened guidance of a ruling elite, so Saint-Simon temporized his initial commitment to reason through an appreciation of the value of sentiment, embodied in the arts, as a vital catalyst in securing universal acceptance of progressive reform." Neil McWilliam, *Dreams of Happiness: Social Art and the French Left, 1830-1850* (Princeton, NJ: Princeton University Press, 2017), 31.
[13] Ozenfant and Le Corbusier, *Après Le Cubisme*.

still as much derided as it had been one generation prior, when cultural conservatives diagnosed the movement as a symptom of degeneracy.[14] The editors believed, like many of their collaborators within the journal – including the critics Maurice Raynal, Waldemar George, and the gallerist Leonce Rosenberg – that the orientations of post-war French culture were to be found in the opposite direction: in returning to the linear enclosure of solid forms, and seeing what could be "synthetically" built up as a result. Recall here the editorial catchphrase: "There is a new sprit: it is a spirit of construction and synthesis guided by a clear conception."[15]

Writing in 1923, the critic Gustave Coquiot offers some telling remarks on why Seurat rather than Cézanne was chosen to personify the journal's cardinal virtues of construction and synthesis:

> At this moment, it is above all "the constructors" who ally themselves to Seurat. Now what are the names of these constructors? I don't know; there are too many of them! The young painter-constructors today are swarming. They all want to be constructors! That means, I think, that they paint solidly, these chaps.
>
> [Or again:]
>
> It would perhaps be appropriate here – without waiting any longer – to use the word constructor. . . Constructor of what, in what way? It doesn't matter! This word means everything. [16]

Coquiot's cynicism is instructive. It reminds us that the popularity (or, for us, familiarity) of construction as an aesthetic concept obscures the multiplicity of concepts and metaphors which underlie its promotion. In the previous chapter, I described how the notion of synthesis referred to a philosophical category, broadly encompassing the capacity of art to secure the cohesion of a scientifically conceived subject. With construction, we encounter a discursive territory no less

[14] Neil McWilliam," Degenerate Art: Impressionism and the Specter of Crisis in French Painting," in *A Companion to Impressionism*, ed. André Dombrowski (Hoboken, NJ: Wiley Blackwell, 2021), 517-532.
[15] « L'Esprit nouveau » [editor's note], *EN* n° 1, 3.
[16] Gustave Coquiot, cited in Silver, *Esprit De Corps*, 338.

vast. The word appears on average between ten and twenty times in each issue, though, again, always with slightly different connotations. In its most literal sense, construction is used (most often by Le Corbusier) in the sense of building, i.e., as a shorthand for both the processes (verb) and objects (noun) of manufacturing large structures.[17] Le Corbusier's demarcation of this type of construction from the more "poetic and emotional" valences of architecture proper is more complex. "Modern architecture begins," he writes, "where our senses are moved by forms put in harmony, and our spirit by the perception of the mathematical relations which unite them."[18]

Other authors in the journal, however, use construction to refer more generally to precisely what Le Corbusier reserves here for architecture alone, namely: the "harmonious" integration of multiple parts into a single whole. This sense of construction often appears in tandem with synthesis, as a feature of all meaningful creative activity. For example: Dermée notes that the "logical construction" of Mallarmé's poetry is evident in the syntax of available terms.[19] F.T. Marinetti claims that in a dance by Nijinsky, the construction is analogous to a painting in which a "compositional harmony" is achieved by "formal and colored organizations."[20] René Bizet's "Dialogue on the Aesthetics of Music-hall" says of a troupe of acrobats: "The are eight. They establish before our eyes, the most daring constructions. If one of them withdraws, the construction collapses."[21]

This last example introduces how the journal's authors attribute to a French "constructive spirit" a solidity and verticality which is opposed to a more primitive earth-bound state. For

[17]Two examples of this: "reinforced cement has found certain plastic expressions in large industrial constructions." Le Corbusier-Saugnier, « Trois rappels à Mm. les architects », *EN* n°4, 470. Also: "The villa appears in the middle of the other constructions." Le Corbusier-Saugnier, « Le Tracés Régulateurs », *EN* n° 5, 572.
[18]Le Corbusier, « L'heure de l'architecture », *EN* n° 28, n.p.
[19] Paul Dermée, « Gongora et Mallarme », *EN* n° 3, 28.
[20] F.T. Marinetti, « La Danse Futuriste », *EN* n° 3, 304.
[21] René Bizet, « Dialogue sur l'esthétique de music hall », *EN* n° 6, 677.

instance, the filmmaker Jean Epstein says of the poetry of Blaise Cendrars: "The foundation is laid and the tower rises. One passes to construction."[22] In a polemic surrounding painterly technique, the artist Gino Severini bemoans those who think "it possible to place furniture and hangings in a house before having made the foundations, the scaffolding, and erected the stone or brick walls."[23] At stake here is the difference between a "real [and not simply apparent] solidity" within construction. And, like others in the journal, Severini locates this difference in the uses of geometry. He distinguishes between those for whom geometry is a foundational means of construction, and those for whom it appears as a stylistic afterthought: "The supports and iron bars that one puts on the walls that threaten to fall down, play the same role as these 'geometrizations' or contours that pass from one object to another to link them, or any other 'trick' that has the aim of giving the appearance of construction."[24] An article by the art historian Paul Westheim uses this same line of criticism when suspecting the newly formed Bauhaus school of an "engineer's romanticism" that trades only superficially in geometric forms."[25] Westheim cautions against "a new academicism reveling in the stylization of the square," which indulges in "an unspiritual play of the forms."[26] Indeed, the distinction between the solidity of a legitimately constructive geometry and more decorative "geometrization" is a rhetorical trope which is used repeatedly by the journal's contributors to distinguish a "constructive spirit" in France from its "foreign" counterparts.[27]

[22] Jean Epstein, « Le phénomène littéraire », *EN* n° 9, 969.
[23]Gino Severini, « Cézanne et le Cézannisme », *EN* n°11-12, 1464.
[24] Gino Severini « Cézanne et le Cézannisme », *EN* n°11-12, 1464.
[25] Paul Westheim, « Allemagne - La situation des arts plastiques », *EN* n°20, n.p.
[26] Ibid.
[27] "One does not need to be a great scholar to realize that French mechanics, as a construction and as a realization, is really very different from foreign constructions." Pierre Winter, « Sports », *EN* n°11-12, 1366.

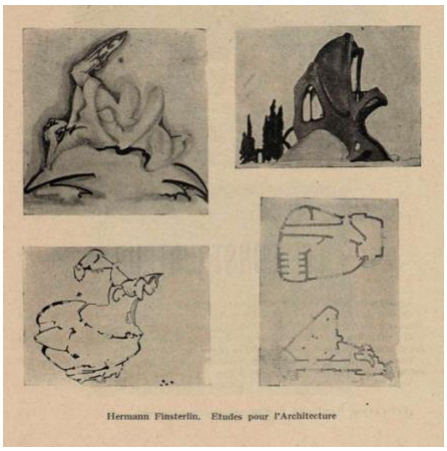


FIGURE 3.2 Hermann Finsterlin, architectural studies. Reproduced in Ivan Goll, « Bilan d'une generation », *EN* n° 25, n.p.

Solidity and verticality are also repeatedly contrasted with a more pejoratively primitive, earth-bound state. The gallerist Leonce Rosenberg evokes an evolutionary schema when describing non-constructive art as keeping its "snout bent towards the earth."[28] And a similar pejorative is used by the poet Ivan Goll when lamenting the primitive "illness of mind" that pervades the pre-war architecture of Hermann Finsterlin (Fig. 3.2). Goll writes: "the attachment to the little beast deeply rooted in man, while the spirit knows, if it is led, how to soar – this hypnotic attachment, here it is in the Germanic countries trying, in darkest confusion, to disentangle the problem of soul."[29] Representing pre-war German culture, Goll argues, their solidity has been "twisted by the same frightening neurasthenia."[30] Against the backdrop of this chaotic and earth-bound "crisis of spirit," French construction appears for Goll as a corrective to German art, bringing with it a new "century of health and honesty."[31]

[28] This contrast, already familiar to scholarship surrounding Le Corbusier's use of structural pilotis, finds a lesser-known chorus with Leonce Rosenberg: "Those who are usually called "men of taste" look strangely like those pigs whose snout is always bent towards the earth, looking for truffles, and never lifts towards the sky." Leonce Rosenberg, « Parlons Peinture », *EN* n° 5, 579.
[29]Ivan Goll, « Bilan d'une generation », *EN* n° 25, n.p.
[30]Ibid.
[31]Ibid.

With the examples above, I have suggested that the journal's usages of construction often relied upon a rhetorical contrast which pit the upright solidity of French construction against the shambolic baseness of primitive form. But I would like to add some nuance to this distinction. Insofar as these metaphors position the human within an evolutionary spectrum, I see the journal's authors as also trying to distinguish French construction from what would be a purely rational, advanced mode of cognition. In much the same way that Basch and Lalo locate the aesthetic as an intermediary between inferior and superior dimensions of the human organism, I also see the idea of construction being conceived as a kind of evolutionary passage between embodied perception and geometric ideation. For instance, Ozenfant, who is more psychologically (if not also philosophically) adept than Le Corbusier, repeatedly asks how both art and science enable us to transcend the abstract and often virtual "constructions" that our "brain imposes on us."[32]

In an editorial note, he describes a common error of the mathematical mind "in not understanding that a thought which is satisfied with abstract constructions, without the vaguest hope of grasping in them the framework of any reality, is an instrument of sterile dialectic."[33]And yet, for Ozenfant and others, this "passing into reality" is not a simple matter of material operations either. The journal distances itself from a nascent constructivist tendency in Russian art based on its one-sided materialism. For instance, the painter Ivan Pugni claims that while both French and Russian artists were influenced by the same wave of Cubist

[32] "Nothing allows us to believe that abstraction and experience are anything other than a construction of the mind, which is limited for everything that does not attack it. . . The space, the time, the external bodies, the categories of the sprit are perhaps virtual constructions that are brains imposes to us, a sieve which retains perhaps nothing but illusions, virtual or real. Amédée Ozenfant « Certitude », *EN* n° 22, n.p. A similar concern informs Jules Lallemand's critique of Kantian idealism: "As Kant purified morality by emptying it of all content, so his aesthetic is an exclusively ideological construction." Jules Lallemand, « La méthode et le definition de l'esthétique », *EN* n° 3, 259.

[33] Amédée Ozenfant, « Pensées d'hier et maintenant », *EN* n° 4, 410.

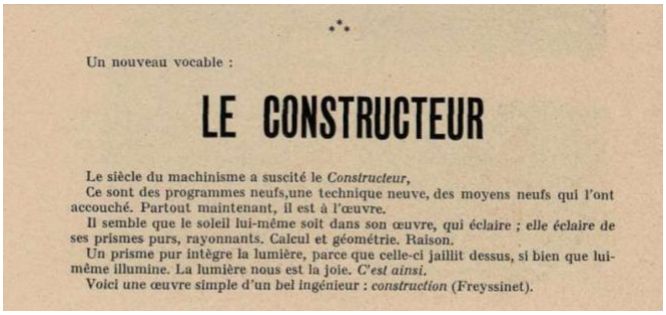
experimentation (with "iron, cardboard, paper, wood, etc."), constructivism in Russia directed these processes into an ideological informed fetishism of material practices.[34] Pugni argues that construction under the sign of Marxism "leaves out the intellectual element, and makes the spirit appear from the matter," whereas French construction retains "the enchantment of a hallucinated and isolated universe."[35] Pugni also argues that constructivism in Russia attempts to simulate "the psychology of the producer, the proletarian," who produces well-crafted objects, but who is disengaged from the more genuinely psychological capacities of human sensibility (i.e., the "intellectual emotions" which Pugni calls the source of artistic construction).[36] Again, my suggestion is that the journal's authors, here Pugni and Ozenfant, use constructivism in France as a way of delineating the aesthetic as an evolutionary middle ground between the primitive body and rational mind.

In sum, I see a recurring consensus in the journal that there is a "constructive spirit" in France, and that it is distinguished (a) by a play of sensation and intellect, and (b) one which is actualized (i.e., given its solidity) on a plane of reality defined by the imagination. This position is neatly encapsulated in Ozenfant's review of a book by the physicist Paul Langevin. Langevin's questioning of the principles sub-atomic reality, Ozenfant says, requires him to transcend not only abstract mathematics but also materiality itself, as perceived by the senses. Langevin, Ozenfant claims, "renounces the acrobatics of thought" and uses "the treasures of imagination to create these complex and fragile constructions of spun glass."[37] It is significant that the imagination of a modern physicist comes to represent a new standard for aesthetic construction. But the more profoundly scientific convention here concerns how such models are

[34] Ivan Pugni, « Russie – L'art », *EN* n° 22, n.p.
[35] Ibid.
[36] Ibid.
[37] Amédée Ozenfant, « Livres nouveaux – Science », *EN* n° 22, n.p.

conceptualized in the first place. I suggest that Langevin is presented as a new evolutionary subject, uniquely poised for a future of health and optimization.

Here we return to the issue of kinship. For more than just the dramatic personae of new aesthetic virtues (in this case, construction), I suggest that Langevin appears within the imaginary of *L'Esprit nouveau*, like Seurat, as figures who connect the past into a projected future. They provide an example of what it means to thrive within modern experience. In evolutionary terms, they are new and newly generative human types. This notion of a new subject is best expressed in what the editors introduce, in bold lettering, as a *nouveau vocable*: « *LE CONSTRUCTEUR* ».[38] "The century of mechanization has given birth to the builder," they write, "[n]ew programs, new techniques and new means have given birth to him. Everywhere now, he is at work."[39] Here I want to ask: What is the nature of these new and exemplary builders? And how is their salutary function conceptualized under the rubric of a scientific aesthetics?



Un nouveau vocable :

LE CONSTRUCTEUR

Le siècle du machinisme a suscité le *Constructeur*,
Ce sont des programmes neufs,une technique neuve, des moyens neufs qui l'ont accouché. Partout maintenant, il est à l'œuvre.
Il semble que le soleil lui-même soit dans son œuvre, qui éclaire ; elle éclaire de ses prismes purs, rayonnants. Calcul et géométrie. Raison.
Un prisme pur intègre la lumière, parce que celle-ci jaillit dessus, si bien que lui-même illumine. La lumière nous est la joie. *C'est ainsi.*
Voici une œuvre simple d'un bel ingénieur : *construction* (Freyssinet).

FIGURE 3.4 Detail from editorial note, « Coupures de journaux», *EN* n°25, n.p.

Here I propose that we situate the journal's conceptualization of this new aesthetic subject – the constructor – amidst changes to conventional notions of genius in 19th- and early

[38][Editorial note], « Coupures de journaux», *EN* n° 25, n.p.
[39]Ibid.

20th-century France. According to the historian Anne Jefferson, these conventions were radically transformed by new and controversial evolutionary preoccupations in fin-de-siècle science. The first concerned the conditions under which genius is inherited (whether by race, nation, family lineage, local custom, etc.), and the second with whether to classify genius as normal or pathological behavior.[40] In general, fin-de-siècle science, argues Jefferson, severed a traditional romantic linkage between genius and insanity and, in so doing, opened up new pathways for thinking about the artist as a normative standard, or as an "optimal expression of the human."[41] Crucially, the question of an artist's "seminal" nature – i.e., their capacity to seed and reproduce themselves in others – is transformed from a romanticism of suggestive, contagious, and potentially dangerous personalities into a more scientifically verifiable discourse around how certain artists are constituted by an exemplary "health of mind."[42]This latter tradition, I propose, was formative to the authors of *L'Esprit nouveau*.

While the journal seems unanimous in defining its "seminal" figures as models of health and hygiene, there are nonetheless important nuances distinguishing these models from one another. First, as we shall see in the case of Seurat, the critic Roger Bissière characterizes the exemplary "health of mind" (referred to by Jefferson) within a more corporeally embedded complex of human sensibility, affect, intellect, and imagination. Second, it is not always clear whether or to what degree these normative standards are informed by a conservative "hereditist" tradition (i.e., concerned with the hygiene of race and nation), or whether they might also be informed by more international and progressivist visions of social solidarity and collectivism.

[40] See in particular Ann Jefferson, "Chapter Nine: Genius Restored to Health" in *Genius in France: An Idea and Its Uses* (Princeton, N.J.: Princeton University Press, 2015), 114-124.
[41] Anne Jefferson, *Genius in France*, 114.
[42] Anne Jefferson, *Genius in France*, 115.

While the journal's editorial commentaries often express a managerial elitism, the social visions articulated under the banner of a new constructive spirit appear to be more varied.

The doctor and hygienist Pierre Winter represents the journal's most conservative affiliations. In an article entitled *« Le Corps Nouveau »*, Winter polemicizes against "the sick geniuses" that are "the enemies of the new body."[43] And while he accepts that these pathologies enable a temporary "exalting" of the faculties, Winter argues that they are only responsible for "destructive works, without a tomorrow of construction."[44] For Winter, who is one of many in the journal to attribute a sentimental tradition to German culture at large, such notions of genius are a residue of an unscientific romanticism of the past. Winter claims that the relevant artistic prototype is someone who simply learns to "take care of himself a little, to know his body, [and] to be interested in his own performance and that of his race."[45] Winter's final emphasis on race here is particularly weighted, and such eugenic overtones will only continue to find expression in his later engagements with interwar right-wing parties, from George Valois' *Faisceau* to the Revolutionary Fascist Party.[46] Indeed, Winter's collaborations with French architects and urban planners in the *Plans* group (including Le Corbusier), continue to inform renderings of *L'Esprit nouveau* as the mouthpiece for an industrial proto-fascism. [47]

[43] Pierre Winter, « Le corps nouveau », n° 15, 1757.
[44] Ibid.
[45] Ibid., 1756.
[46]On Winter's involvement with the Faisceau party, see *Samuel Kalman, The Extreme Right in Interwar France: The Faisceau and the Croix De Feu* (London: Ashgate Publishing, 2016), *37.*
[47] Debates surrounding Le Corbusier's ties to fascism proliferated in 2015, surrounding an exhibition at the Centre Pompidou, *Le Corbusier: Mesures de l'homme.* More about this will be said in the conclusion. My own understanding of this history is informed by: Mark Antliff, 'La Cité Française: Georges Valois, Le Corbusier, and Fascist Theories of Urbanism,' in *Fascist Visions: Art and Ideology in France and Italy*, ed. Matthew Affron and Mark Antliff (Princeton: Princeton University Press, 1997), 134–170.

The journal, however, also voices several efforts to rethink conventions of genius under the model of a more progressivist science. In these efforts, preoccupations with race and nation are replaced by conceiving of the science of aesthetic experience as a more radical and boundaryless disseminator of new forms of social solidarity and consensus. Such a progressivist rethinking of genius finds its relevant precedents in Gabrael Séailles' 1883 *Essay on Genius in Art*, and in the notion of "viable types" as defined by the late 19th-century philosopher Jean-Marie Guyau in his 1889 *L'Art au point de vue sociologique*:

> [A viable type is] perfectly capable of existing, acting, doing something that has never existed in fact, perhaps never will exist. These types are a creation of the human imagination, just as such a body did not exist in nature and was made from scratch by human chemistry with existing elements whose combination it has only varied.

Guyau's notion of "viable types" names a central element of how Seurat, as well as other "builder-constructors," appear within the imaginary of the journal. First, like Ozenfant and Pugni, Guyau emphasizes the imagination and, following the model of chemistry, its abilities to produce new compounds or syntheses.[48] The widespread popularity of Janetian psychology made it easy to imagine the subject like a chemical compound, i.e., as a malleable entity capable of undergoing various configurations. Guyau's viable type also emphasizes action. Faced with a *constructeur* such as Seurat, it becomes important to ask: What do these new subjects *do* in the world? And what are the mechanics by which they do it? Second, Guyau's notion of a viable type assumes that a scientific expert is required to understand the particular configurations of this new and optimally producing subject. For Jefferson, this need for a doctor to explain the genius is a particularly important consequence of genius' conversion into a normative standard. She writes: "[I]n ceasing to be the "other" of the observing medical diagnostician, the man of genius

[48] Pickstone, *Ways of Knowing:* 141.

finds himself making common cause with the neurologists are simultaneously seeking to lay claim to his literary [or artistic] territory."[49]

These two dimensions of Guyau's viable type – its emphasis on the relationship between imagination and action, and the requirement of a scientific interpreter – allow me to pursue in greater detail how and why Seurat is presented in the journal as « *le constructeur* » par excellence. If no longer a genius in the romantic tradition, how is his future influence (i.e., his seminality) reimagined under the banner of a scientific aesthetics? What, in other words, is the function of science in underwriting his status as a *viable type?* And who are the relevant scientific experts called upon to authorize his status as prototype for a newly constructive spirit in France?

Bissière's « Notes sur l'art de Seurat »

The painter Roger Bissière's « Notes sur l'art de Seurat» is the first piece of critical writing to appear in *L'Esprit nouveau.* Directly following Victor Basch's theoretical introduction to the "new science of art," it reframes these central problems from the perspective of a working artist. Bissière begins by assuming the position of the minority: "In an epoch where it is more and more in fashion to deny to painters the right to have theories, at a moment where most people try to convince us that one must paint by instinct alone, 'like a bird that sings,' it is particularly endearing to recall the memory of the great Seurat."[50] With this, Bissière introduces Seurat's "patient and continuous research" as a synthesis of intellect and instinct. This synthesis is restated several times within the essay, though instinct is later replaced, adding both moral and

[49] Jefferson, *Genius in France*, 116.
[50]Roger Bissière, « Notes sur l'art de Seurat », *EN* n° 1, 13.

affective connotation, as a function of the "heart."[51] Seurat, "fearing neither coldness or tedium" knows that only reason can "furnish the heart with the means and the force to radiate."[52] Or inversely, taking the position of the viewer, Bissière writes that, by "surpassing the accidental," and showing a "cold-bloodedness before a canvas," it is Seurat's "dominating of his own sensibility" that enables him to find a more "profound access to our hearts."[53] Notice here how explicitly the aesthetic functions as the basis for social connectedness. Notice also that it is an aesthetic conceived, first and foremost, through acts of internal regulation. Seurat's yoking of his own bodily sensibility to the higher faculties of the mind produces the conditions for aesthetic sociability: i.e., for a communication between hearts that "radiate" and those that are "given access to." [54] In what follows, I want to explore the conditions underpinning this model of aesthetic consensus. I will ask: How does Bissière conceptualize Seurat's artistic *métier* or profession? What are "the means" or *moyens* of his practice? And what are the effects that his works are imagined to have within the social field that they encounter?

Bissière invokes Seurat's *métier* by questioning the nature of what he *does*. He introduces Seurat as a "patient researcher," whose "experiments" consciously take up their "means of their expression."[55] For instance, Seurat's graduation from tonal study to chromatic tableau presents, for Bissière, the clearest indication that, "[a]bove all, he wants to give himself a profession . . . a means of expressing himself without hesitation or repentance."[56] In approaching these "means" however, Bissière does not simply refer to what we might think of today as questions of artistic *medium*. More than being a painter of paintings, Seurat is introduced as someone who works in

[51]Vicavanu writes "The "heart" standard is without doubt one of the greatest contradictions of the program of this journal, which is the heir of psychophysics and experimental aesthetics." Vicovanu, *L'Esprit nouveau*, 6.
[52] Bissière, « Notes sur l'art de Seurat »,14.
[53]Ibid.
[54]Ibid., 16-17.
[55]Ibid., 13-14.
[56]Ibid., 16.

relationship to his own bodily sensibilities. While initially Bissière characterizes this self-relating aspect as willful and dominating, he later softens this imagery. We learn that Seurat's métier is also comprised of a receptive, submissive, principle that follows the "universal and mathematical laws" pursued within the limits of the work.[57] Bissière cites the painter and critic Lucie Cousturier, describing Seurat's process as a passage from the initial "shocks of embodied sensation, to the geometric harmonies both perceived and pursed within the painting."[58]

Above all, what Bissière values in Seurat is his processual capacity to both perceive and clarify a work's pictorial unity. Bissière repeatedly conceives of the aesthetic *métier,* not as an analytic filtering of sensory experience (the Impressionists are derided for merely "photographing their sensations") but rather, as an imaginative remaking of experience on a new aesthetic plane. A painting is a "special world" with its own "particular life."[59] This process of synthesizing is synonymous with the imagination – which is conceived for Bissière, not as a faculty of the mind, but as a processual capacity to synthesize an externalized work. Bissière writes that Seurat "recreates" instead of copying; he "inscribes" rather than describes.[60] Seurat is a constructor for Bissière, I suggest, not because "he paints with solids" but because he builds a distinct reality – "work[ing] according to the frame that encloses [his canvases]."[61] He "transposes" from the raw data of embodied experience, producing new and "living geometries" that are stabilized according to the "laws which govern any painted surface."[62]

[57] Ibid.
[58] Ibid.
[59] Ibid., 14.
[60] Ibid., 15.
[61] Ibid., 16.
[62] Ibid.

Bissière emphasizes that Seurat's construction of a distinct reality depends on a "yielding" to the laws and imperatives imposed by the work. Other contributors to the journal also stress the importance of yielding to mathematical and universal laws, particularly when describing acts of construction.[63] In a section entitled simply, "The Laws," Ozenfant and Le Corbusier describe their relevant models ("Pasteur, Newton, Michelangelo") as having subordinated themselves ("to appear was not their concern") to the more general principles of organization underlying their work.[64] "A great constructive art," they write, "will necessarily start from an analytical choice and necessarily from materials chosen by our human senses; but it is by studying the present universe that this association will rise above the coarse and fleeting contingencies and that it will express a law."[65] A similar "obeying [of] inner laws" is used by Le Corbusier and Ozenfant when describing the Neoclassical painter J.D. Ingres, as having an "imperative preoccupation [with] making the forms and colors consonant."[66] The notion of an "imperative preoccupation" indicates the psychological depths assumed by these various acts of construction. In Bissière's account Seurat's embodied perception is stubbornly distracted by minute calibrations with respect to color, shape, and tone.[67] It is by pursuing these harmonies, described as "contrasts and analogies that are infinitely subtle," that Seurat uses his own bodily sensibility to actualize a new plastic reality.[68]

Bissière further specifies Seurat's means of expression through a particular notion of the pictorial. Seurat, he says, "never forgot that the sole purpose of painting was to make tableaus in

[63] This yielding to an imperative is a theme that reappears numerously in the journal, particularly within the context of construction. Describing a new "epoque of creation," the Chilean poet, Vincent Huidobro, writes: "Poetry must not imitate the aspects of things but follow the constructive laws which are their essence, and which give the independence of all that is." Vincent Huidobro, « Epoque de creation », *EN* n°15, 1820.
[64][Editors Note], « Les Idées d'Esprit nouveau », *EN* n°11-12 , 1348.
[65] Ibid.
[66] [Editor's Note], « Recherches », n° 22, n.p.
[67] Bissière, « Notes sur l'art de Seurat », 17.
[68] Ibid., 27.

the sense that Ingres gave to this word, which is to say living architectures, organized according to eternal laws and resulting from a higher mathematics."[69] For Bissière, the tableau is a middle ground between painting and architecture. They have the calm, he says, of "an Egyptian bas relief."[70]

The criticism surrounding Seurat often associated painterly tableau and sculptural *relief*. As far back as 1888, the critic Gustave Kahn had quoted his young neoimpressionist friend as saying that he wanted to make modern people moving about in the kind of procession one finds in a "Panathenaic frieze."[71] The critics Félix Fénéon and Jules Christophe, both writing in 1889, define Seurat's pictorial devices as oriented by classical relief.[72] What is at stake in the notion of relief, I suggest, is an absolutist conception of space. The relief carves out a controlled interior, a niche, every aspect of which is accounted for by its maker. Unlike painting, whose conventions allow for more or less vague suggestions of three-dimensional expansion, or sculpture which preserves the contingency of multiple viewpoints, relief stands for an experience of space every aspect of which is registered as artificial. A central chapter of Adolf Hildebrand's *Problem of Form in the Fine Arts (*1893) described relief along these lines, arguing that it demonstrated the importance of spatial cohesion to visual communication at large.[73] For Hildebrand, relief was

[69]Ibid., 16.
[70] Ibid.,18.
[71] See G. Kahn cited in Michael F. Zimmermann, "Seurat, Charles Blanc, and Naturalist Art Criticism, " *Art Institute of Chicago Museum Studies* 14, no. 2 (1989): 247.
[72] Jules Christophe, « L'Exposition des Artistes Indépendants », *Journal des artistes*, (September 29, 1889): n.p.*;* Felix Fénéon « L'Exposition des Artistes Indépendants à Paris », *L'Art moderne*, (October 27, 1889): n.p.
[73]Hildebrand writes: "How far the artist is able to represent each individual value in relation to this universal value of depth conditions the harmony of the image. . . the more clearly this can be felt, the more coherent and satisfactory is the impression. This unity is the central problem of form in art." Adolf Hildebrand, "On the Concept of Relief" in Robert Vischer, Harry Francis Mallgrave, and Eleftherios Ikonomou, *Empathy, Form, and Space : Problems in German Aesthetics, 1873-1893, Texts & Documents*, (Santa Monica, CA: Getty Center for the History of Art and the Humanities, 1994), 251-260.

exemplary in its coercion of a viewing subject: "What matters," he writes," is simply the degree of vigor with which the figure suggests specific vantage points."[74]

Like Hildebrand, Bissière is interested in the effects of relief on a spectator. Following Seurat's obedience to the work's internal imperatives, it follows that the work expresses this same law towards its viewing public. The works which "touch us most," writes Bissière, are the "most absolute."[75] For Bissière, Seurat's *Grand Jatte* exemplifies this absolutism. Bissière writes*:* "The composition is exclusively based on verticals and horizontals, with all the light taking refuge in the center, fixing the viewer's eye and not allowing it to wander randomly over the canvas."[76] These coercive effects, claims Bissière, produce a pleasurable feeling of distance.[77] "She does not offer any easy or excessive effect. The joy it gives us comes from the fact that everything is in its place, that nothing has been left out."[78] Paradoxically, Seurat's work presents a space so well-conceived that one cannot possibly enter.

Bissière, in a similar paradox, relishes in aesthetic pleasures that double as moments of anaesthetic relief. Repeatedly, Bissière finds in Seurat an "appeasing quietude" and sense of "calm."[79] In one of the essay's most striking formulations, he compares a painting by Seurat to "a well-made body, whose every movement is easy and which seems to move without fatigue, at the very minutes when it deploys the most force."[80] Bissière's analogy here likely draws from multiple lineages of aesthetic thinking.[81] In this context, however, I am interested in how Bissière uses this figure to represent a dynamics of perception afforded by the experience of

[74]Hildebrand, "On the Concept of Relief," 258.
[75]Bissière, « Notes sur l'art de Seurat », 17.
[76]Ibid.,27.
[77]Ibid.,17.
[78]Ibid.
[79]Ibid.,15,18.
[80]Ibid.,18.
[81]As I will share with respect to notions of rhythm, Paul Souriau's widely popular *Aesthetics of Movement* had defined the economy of a moving body as the quintessential example of aesthetic grace.

painting. Why is it that Seurat's minimal pictorial means produce a maximum of aesthetic force? How are we to understand Bissière's curious pairing of aesthetic pleasure and anaesthetic relief? On what grounds do these effects suggest that Seurat is not just as a great artist, but a "salutary" one?

To answer these questions, it is necessary to expand our scope. For if, as I have been suggesting, Bissière finds in Seurat a variation on Guyau's viable type (i.e., someone whose regulation of his own embodied sensibility serves a new standard for healthy living) then it seems likely, following Jefferson's suggestion, that such a normative genius would require a scientific authority to understand and articulate its influence within public life. Bissière, as critic, fills this role to some extent. Seurat's more authoritative chaperone, however, is the expert Charles Henry, the autodidact librarian who later became Director of the Laboratory of the Physiology of Sensations at the Sorbonne. My suggestion is that Henry's presence in *L'Esprit nouveau* both legitimates and expands upon the complex science of perception simply alluded to in Bissière's article. In turning now to his contributions, I will further unpack some of the social and political complexities surrounding the figure of Seurat.

Charles Henry

Issues n°6-9 of the journal feature an extended reprinting of Charles Henry's « La Lumière La Couleur et La Forme ».[82] This work was delivered at the Sorbonne on the 7th of November 1920, under the auspices of the radical theatre group *Art et Action*.[83] The inclusion of Henry's lecture

[82] Charles Henry, « La Lumière La Couleur et La Forme », *EN* n° 6-9.
[83] The group was formed in 1919 by the architect Eduard Autant and actress Louise Lara. Experimenting with artists working in various media, they created a multi-sensorial theatre fashioned after Apollinaire's philosophy of simultaneity and the theatrical vision of British theatre director Edward Gordon Craig. See Gray Read, *Modern Architecture in Theater: The Experiments of Art Et Action*, (Palgrave Pivot. Basingstoke: Palgrave, 2013).

was a source of some controversy amongst the journal's principle collaborators, some of whom had apparently grown weary of the famously esoteric and now veteran mathematician.[84] But Henry's presence in the journal is clearly meant to invoke an authority of a Pythagorean nature.[85] What comes across most forcefully in Henry's dauntingly technical contribution is the legacy of 19th-century psychophysics – its mathematical precision summoned in no less than 24 figures, and 10 of his "favorite curves."[86]

For Henry, the bridging of art and science relied upon the translation of nature into energy. Born at the very moment in which the first law of thermodynamics was published, Henry apprenticed himself to a scientific vanguard that sought to explain the mysterious conversions between heat, light, movement, and force. Anson Rabinbach describes this moment as the "Helmholzian turn" in which the image of the *machine* as a relay of direct mechanical force is replaced by the *motor* as a new and paradigmatic image of energy in a state of conversion.[87] This new science conceives of the body as an economy of different energy systems. "Beginning in the

[84] Estelle Thibault, *La Géométrie Des Émotions*, 163

[85]An introduction by the art-historian Victor Goloubew reads:" It is not contestable that the knowledge of the art, as any other science, must aspire to be positive, as well in its theoretical content, the sensation and the judgment, as in the investigations applied to the intellectual evolution of the arts as well as of their techniques. These orientations are moreover in the tradition of the Renaissance, whose great artists were great scholars. These same orientations are also in the ancient tradition, especially Pythagorean, which dictated modules to temples and canons to statues and vases. Victor Goloubew [Introductory Note] « La Lumière La Couleur et La Forme », *EN* n° 6, 606. Jonathan Crary offers a critique of Jose Arguelles' characterization of Henry as a "the prophetic voice of 'scientific-mystical aesthetic' of the future." Crary claims that one must attribute Henry's status as a "a bourgeois librarian and autodidact at the Sorbonne [to] related nineteenth-century fantasies of a universality of knowledge in all its newly reified and consumable forms, about which Flaubert has said the last word." See Crary, *Suspensions of Perception*, 166. Jose Argüelles, *Charles Henry and the Formation of a Psychophysical Aesthetic* (Chicago: University of Chicago Press, 1972).

[86]Charles Henry, « La Lumière La Couleur et La Forme », *EN* n° 6, 605-606.

[87]Whereas the older conception saw the machine as a relatively passive conduit, a complex of levers and gears redirecting an externally derived energy-source, the new model acquired, in its capacity for conversion, a new sovereignty as source and creator of a new variety of energetic forms. According to Rabinbach, 1854 marks the year in which the steam engine, now properly established within the popular imagination, becomes the central model for the machine as an integrated process of energy conversion and production. A concise history of these "corporeal thermodynamics" can be found in Anson Rabinbach, "The European Science of Work: The Economy of the Body at the End of the Nineteenth Century," in *Work in France : Representations, Meaning, Organization, and Practice*, ed. Steven L. Kaplan and Cynthia J. Koepp (Ithaca: Cornell University Press, 1986), 475–81.

1850s and 1860s," Rabinbach writes, "the old mechanical image of the body with its mysterious forces of movements of liquids and solids began to be superseded by an image of the body predicated on a new kind of nature, constituted by the indissoluble unity of matter and motion."[88] Étienne-Jules Marey's *La Machine Animal* of 1873, the key text in this transition, outlines the task of physiology as a study of forces.[89] Marey's work imagines the body in the totality of its movements. In his well-known chronophotographic studies, he studies how the body evolves its range of movements, developing new efficiencies while staving off waste.

Henry, one generation younger than Marey, is also interested in overcoming the dualism of matter and motion. He writes "We can only represent and thus study ourselves as movements."[90] In his lecture, he maintains that movement is the primary basis from which art can be studied, both in its creation and perception: "Look at the chickens and at children; they see a passing car and rush towards it at the risk of being run over. The vision of movement is inseparable for them from a movement in the direction of the mobile. It is this inseparability of motor actions, necessarily continuous, with discontinuous luminous sensations, which leads to the necessity of drawing."[91] Unlike Marey, however, Henry is interested in using physiology to understand relations between the perception of movement and what he calls "the psychic functions."[92] Whereas Marey's science was oriented by images of whole bodies carrying out simple tasks, Henry's various charts and graphs were an effort to visualize the mechanisms of energy at a more micrological scale. "I will only draw curves," he says in the opening of his lecture, "the images

[88] Rabinbach, "The European Science of Work," 479.
[89] "All of the forces of nature are reduced to only one," Marey writes. "Force may assume any appearance." Etienne-Jules Marey, *La machine animale : locomotion terrestre et aérienne* (Paris: G. Baillière, 1873). Cited in Rabinbach, "The European Science of Work," 480.
[90] Charles Henry, *Cercle chromatique* (Paris : Chez Charles Verdin, 1888), 6.
[91] Charles Henry, « La Lumière La Couleur et La Forme », *EN* n° 8, 951.
[92] Ibid.

are always clear. You will thus know the laws of the most precious and personal of your instruments, which is your sensibility."[93]

To fully appreciate this distinction, it is helpful to recall that the thermodynamic theory of the mid-19th century also constituted a substantial revision to notions of perception. The Helmholtzian turn involves a radical reconstitution of the sense organs. No longer the transparent registers of external inputs, they are newly regarded as complex machines, capable of their own motoric conversions. As Jonathan Crary observes, the retina ceases to operate as a glass prism through which the world is filtered and becomes a "metonym for the seeing body in all its physiological density."[94] The psychophysiological sciences turn their attention toward the elemental processing of disorderly sensations within the body at large.[95] Through new means of experimentation, the study of sense perception is reinvented as an interpretation of energy transformations: again, matter in motion: "One has sought to compare the degrees of sensation, perceived in conditions as comparable as possible, with those sensations of length which define objective excitation, and this is the object of the science called psycho-physics."[96] Henry repeatedly cites the inventor of psycho-physics Gustav Fechner for having introduced an experimental system for studying the perception of movement in its various forms.[97] However, Henry's interest in questions of "objective excitation" can be traced more directly to the laboratory experiments of Charles-Éduard Brown-Séquard. [98]

Brown-Séquard's notion dynamogeny, a precursor to what was later theorized as "excitation," refers to the heightening of activity within one area of the nervous system at the

[93] Ibid., 609.
[94] Crary, *Suspensions of Perception*, 153.
[95]Crary writes: "Light no longer leads primarily to the formation of images but to changes in the body, to redistributions of energy within an active, mobile subject." Crary, *Suspensions of Perception*, 170.
[96] Henry, « La Lumière La Couleur et La Forme », 607.
[97] Ibid., 608.
[98] On this connection, see: Crary, *Suspensions of Perception,* 239; Brain, *Pulse of Modernism,* 103.

expense of another. Dynamogeny is opposed to inhibition, understood as vaso-congestion or as a localized "asthenia" of the nerves. Together, this binary provides a basic framework for studying the body as a site of thermodynamic processes.[99] With dynamogeny and inhibition, Henry extends Gustave Fechner's project for an "aesthetics from below," using psycho-physics as a method to measure the quantitative thresholds at which sensations translate into a noticeable increase in nervous activity. "It emerges from this research that the nervous cell is a complex resonator, analogous to the photographic plate. . . The artist appears like a mechanism of a deep and multitudinous sensitivity, of which it will be necessary to trace for the various mediums, in space and time, the innumerable curves of resonance."[100] Elsewhere, Henry also describes his curves, more simply, as the "concrete image of the relation between sensation and excitation."[101] In a tradition that runs parallel to that of Charles Blanc – whose Grammaire deconstructed the perception of art into a more elemental experience of basic forms – Henry used Brown-Séquard's notion of dynamogeny to represent aesthetic experience as a fluctuation in nerve centres.

For Henry, studies in dynamogeny helped explain the complexity of sensation as it interfaces with our perceptual apparatus. The sensation of form, he writes is "remarkably interdependent with those motor phenomena, virtual or real, movements of the eye or of the appendages, which make it possible to grasp and calculate the manifestations of psychic energies."[102] Interestingly, these dynamics of excitation and inhibition can be used to describe a singular aesthetic experience. Colour contrast in painting, for example, can be understood as the simultaneity of dynamogenous and inhibitory factors within the same perceptual frame. Likewise, rhythm in music can be understood as the "virtual simultaneity" of successive sound

[99] See Arguelles, *Charles Henry*, 169. See also Ellenberger, *Discovery of the Unconscious,* 289.
[100] Henry, « La Lumière La Couleur et La Forme », 605.
[101] Ibid., 608.
[102] Henry, « La Lumière La Couleur et La Forme », 951.

elements that have an accelerating (dynamogenous) and arresting (inhibitory) effect on the nervous system.[103] In this sense, all aesthetic excitations can be read in their dynamics with an anesthetic counterpart. Thus, for instance, Henry understands what Bissière calls aesthetic harmony as an equilibrium between these two complimentary effects on the nervous system. Indeed, this was a central point of conversion between Henry and the neoimpressionist painters with whom he was in conversation. Adapting previous colour-theory towards a new psycho-physiological paradigm, the so-called divisionist (or later "pictorialist") paintings of Signac and Seurat could now be conceived, theoretically, as the simultaneity of contrasting physiological effects: the dynamogenous effects of red carefully distributed amongst inhibitory blues and greens.[104]

Henry also shared with Seurat the notion that the internal balance of dynamogous and inhibitory factors was itself dynamogous. "Everyone knows," he writes, "that to each agreeable sensation corresponds a growth in the available force, to each disagreeable sensation a diminution."[105] Though not exclusive to Henry, this observation represents an important linkage between Henry's experimental psycho-physics and the role of aesthetics within the new social hygiene. The harmonious and agreeable, previously theorized as judgments of the beautiful, could now be observed as fluctuations of psycho-physical energy.

Henry developed this more wholistic science of aesthetic perception with the psychophysiologist, Charles Féré.[106] Working in Charcot's laboratory at the Salpetrière hospital, Féré used a so-called dynamometer – a small device measuring changes in hand tension – to

[103] Ibid., 956.
[104] Brain, *Pulse of Modernism*, 122-123.
[105] Arguelles, Charles Henry, 168.
[106] Charles Féré's *Sensation and Movement* introduced a theory of how the intensity of mental representations translated into an equal intensity distributed within the nervous system. Charles Féré, *Sensation Et Mouvement: Études Expérimentales De Psycho-Mécanique* (Paris: Alcan, 1900).

compare normal and pathological subjects as they were introduced to various aesthetic stimuli.[107] He used a tuning fork to measure the hysteric's response to certain pitches and colour to demonstrate the ways in which it is not simply the eyes but the entire body that "sees red."[108] These studies were further supported by measurements of blood circulation, which, when combined with nerve tensions in the hand, became the basis for measuring the somatic effects of aesthetic experience. With Henry's substantive four-part contribution to the journal, the same aesthetic "laws," which we encountered in the writings of Le Corbusier, Ozenfant, and Bissierre, are now expressed with all the graphic certainties of a new positivist science.[109]

What is the social vision accompanying Henry's scientific aesthetics? Compared to many of his collaborators, the answer is somewhat difficult to define. Consider for instance that Charles Féré's *Sensation and Movement* begins with the French historian Jules Michelet and defines a clear social ambition for the studies which follow: "Michelet says: Medicine must become justice and morality, i.e. the doctor, an intelligent judge of intimacy, enters into the examination of the moral causes that lead to evil and dares to go to its source, the reform of the habits from which diseases originate."[110] In that same work, Féré claimed that the doctor has a duty to prevent future illnesses by "showing how the maladies are spread by heredity or by contact or for lack of moral or physical hygiene."[111] He proceeds to use the dynamometer to illustrate how energy hygiene can be measured as a function of race, class, gender, and labour.[112]

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[107]Arguelles, *Charles Henry,* 168. Henry cites, for example, one of Feré's studies in which a bottle of musk is passed at various distances from the nose. When agreeable, the subject experiences a rise in overall force – which to the hysteric, is even greater.
[108] Crary, *Suspensions of Perception*, 167.
[109]"Sensation is the fabric of which our mental life is woven; hence the importance of the laws of sensation for the study of art. But to say law is to say statement of a mathematical relation or, according to Ernest Mach's expression, determination of a function of two or more variables." Victor Goloubew, « La Lumière La Couleur et La Forme », 606.
[110] Féré, *Sensation and Movement*, 3.
[111] Féré, *Sensation and Movement*, 3.
[112] Féré, *Sensation and Movement*, 3.

By contrast, Henry's *Sensation and Energy* is attributed to the physiologist Claude Bernard and offers few deviations from the study of pure science.[113] Whereas Féré's social hygiene converged with theories of racial degeneration, in Henry we encounter an evolutionary principle which seems much less moralizing. He concludes his lecture in the journal as follows:

> There are no fixed "canons"; there is an infinity of them obeying all necessarily the laws of the life, in which each race, at a moment of the duration, and each temperament of artist chooses the rhythm of its own sensitivity. It is to say to you that beauty is an evolutionary thing; like the essential truths which constitute the principles of our theories, it is not learned; it is created by the artist.[114]

In this passage, and its concluding orientations towards an "infinity" of canons, we encounter one of the few noticeable traces of Henry's earlier political commitments to anarcho-communist politics. Henry imagined that society was developing towards ever more rational principles of collective organization. He speaks of a future where economic production is streamlined, and child-rearing is placed under the care of the state.[115] Within this future, the aesthetic provides a unique zone of social consensus. The liberated individual, Henry imagined, once left to freely pursue its own temperament and sensitivity, would enter a multiplicity of collective affiliations – again, producing an "infinity of canons" *beneath* the level of the state.[116] Aesthetic experience

[113] Henry writes "The psychophysical laws are general, but, according to the debilitated or normal state of the subjects, the curves that are calculated are affected by different constants, which characterize these subjects and constitute the individual psychology." Charles Henry, « La Lumière La Couleur et La Forme », 616-617.
[114]Ibid.,1075.
[115] Charles Henry, « Enquête sur l'evolution littéraire », in Arguelles, *Charles Henry*, 180.
[116] Whereas socialist ideals from the same period imagined collectivity at state levels and larger, the anarcho-communist press of the 1870s to 189's frequently promoted municipal collectives scaled to the neighbourhood. See the account of the anarcho-communist Jean Grave in Robyn S. Roslak, "The Politics of Aesthetic Harmony: Neo-Impressionism, Science and Anarchism," *The Art Bulletin* 73 no. 3(1991): 383.

offers a model for how individuals, like molecules, enter freely into associations, producing harmonies conceived as both "new" and "agreeable" to society at large."[117]

A similar trace of this earlier anarchist moment in Henry's lecture, notably omitted by the journal's editors, appears in a description of the physiology of polychrome. Henry says: "I present to you an old poster by Signac, which has for a long time adorned the walls of our laboratory. He has inscribed these letters within the chromatic circle, while turning their variable angles following the lines of the poster: hence the systematic changes in colour, interesting, even though the wash has suffered, in many places, from humidity."[118] The letters in question here are T-L, the poster one made by Signac for the anarchist group *Théâtre-Libre* in 1889. A relic of his intellectual coming of age in Paris, amongst the painters Seurat and Signac, the critics Félix Fénéon and Gustav Kahn, and the poet Jules Laforgue, the poster for the Théâtre-Libre was an icon of the associations linking an earlier generation of scientific aesthetics with the political ideals of Kropotkinist anarcho-communism.[119] In its crudest formulation, the unspecified man at the centre of the poster can be read, like the point of colour within the painting, as the autonomous subject from which new social collectives will emerge.[120] An artifact, and one which obviously still had a place within Henry's laboratory at the Sorbonne, the *Théâtre-Libre* poster recalls an earlier moment in which scientific aesthetics presented a challenge to the

[117] On this relationship between chemistry as model, "It is precisely because we anarchists, want a healthy and perfectly-constituted society that we ask that the autonomy of individuals-these molecules of society-be respected. It is precisely because we desire that everyone who has the same affinities be allowed to freely associate according to the inclinations of each that we reject every power wishing to reduce all individuals to the same stamp." J. Grave, « L'Autonomie selon la science », *Le Revolte* 3(1882): l. Cited in Roslak, "The Politics of Aesthetic Harmony," 384.
[118] Charles Henry, « La Lumière La Couleur et La Forme », 949.
[119] Egbert writes: "The very technique that the Neo-Impressionists employed, with its strongly accentuated individual brush strokes, which nonetheless are brought together in harmony to form the picture as a whole, paralleled the individualistic yet communal spirit of communist- anarchism." D. D. Egbert, *Social Radicalism and the Arts: Western Europe (*New York:Knopf, 1970) 240; Robyn S. Roslak, "The Politics of Aesthetic Harmony," 383.
[120] Ibid.

institutional conservatism of the Third Republic. Whereas the latter imagined the arts as a kind of social welfare program administered by way of exhibitions, schools, and museums, Henry's collaborations with Signac aimed at bringing the tools of psycho-physics directly to the workers themselves – thereby affecting change at the level of individual production.[121] On the one hand, this served to empower artist and artisan, by sharing the basic psycho-physical laws underlying human sensibility. And yet, as Brain and other scholars remind us, this was also conceived as a way of gaining some purchase with a quickly expanding market economy.[122] By anticipating how artworks might affect the human sensorium (i.e., the consumer), Henry's science could also be imagined as a tool of social control.[123]

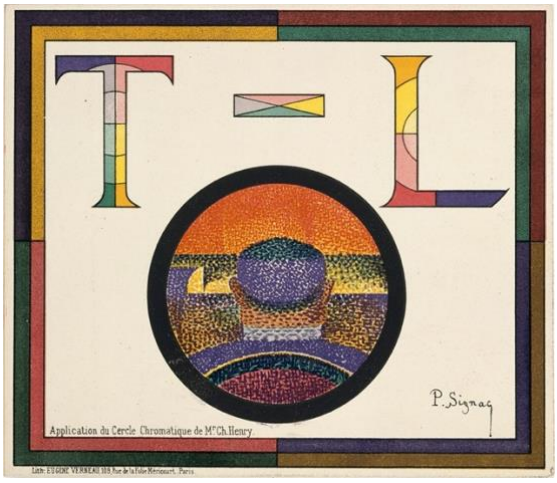

FIGURE 3.5 Paul Signac, *Application of Charles Henry's Chromatic Circle,* Color lithograph on heavy wove paper, 1889. Metropolitan Museum of Art.

[121] On the notion of the arts as a form of social welfare in the Third Republic, see Froissart, "Socialization of the Beautiful," 80. Brain compares Henry's collaborations with Signac to Rancierre's politics of "redistributing the sensible." He writes: "Aesthetics attempts a "redistribution of experience," a realignment of the embodied inequalities in the constitution of the sensible world. Signac's invocation of justice and harmony in sociology and art pointed to this ideological purpose, with Henry's aesthetic expert system as the vehicle for redistributing experience." Brain, *Pulse of Modernism*, 130.
[122]Ibid., 98.
[123]On Henry's legacy of social control, see Crary, *Suspensions of Perception*, 166.

The political legacy of Henry's scientific aesthetics is thus anything but straightforward. His visions of social harmony seem to thwart an emerging conflict between the liberatory politics of his neoimpressionist contemporaries, and the disciplinary tenors of establishment republican science. Here it is important to recall that, at the time of Henry's collaborations with the neoimpressionists, the very notion of association was itself a matter of great political interest. An economic crisis that lasted from 1883 to 1887 prompted a wave of mass protests and a proliferation of journals that served as hubs of artistic and political association. The period was marked by restrictions in press freedom and the increasing criminalization of anarchist collectives.[124] It is within this tenuous period that Charles Henry, the young "savant," begins lecturing at the Sorbonne and in the offices of the short-lived periodical *La Vogue.*[125] In 1894, one year after Fénéon was himself held on trial in Paris, Henry makes a statement which sets a decidedly ambiguous tone: "That which science can and must do is expand the agreeable within us an outside of us, and from this point of view its social function is immense in this time of oppression and blind conflicts."[126] This is an innocuous way of theorizing the social implications of the new scientific aesthetic. And, indeed, it is this very ambiguity which made Henry's science equally amenable to the anarchist's visions of experimental collectivity, as to the more authoritarian directives of social Darwinists such as Charles Féré. The same theories that made Henry a comrade to the Kropotkinists also enabled his professional alliances with some of the most noxious wings of fin-de-siècle chauvinism.

[124] Hutton, *Neo-Impressionism and the Search for Solid Ground*, 49-51
[125] Henry's *Introduction to a Scientific aesthetics*, developed in close dialogue with the radically anti-authoritarian poet Jules Laforgue, and the committed anarchist-critic Félix Fénéon, was published in *La Revue Internationale* in 1885.
[126] Charles Henry, « L'esthétique des forms » *La Revue blanche 7* (1894) :118.

Conclusion

Finally, then, I want to return to Seurat, a figure in whom the journal finds its exemplary constructor and a pre-eminently "viable type." With Bissière, I introduced a mode of art criticism that values Seurat's yoking of his artistic sensibilities to the basic harmonies that constitute a work. The constructive principle in Seurat's work is attributed to the fully spatialized clarity of the scene, on an imaginative plane of reality defined part way between embodied sensation and mathematical abstraction. Seen from this vantage, Seurat's erasure of his own image in the *Jeune Femme* constitutes an exemplary sacrifice. Negating his own image, Seurat subdues the contingencies of his individual personhood to occupy a more direct and forceful presence within his canvases. The painting's drama is no longer embedded in its narrative representation (the dynamics between a painter and his sitter, for instance) but, rather, in its knowing engagement of a viewer through the subtle calibrations of colour, shape, and tone that serve to fix the eye and regulate the nervous system. To the scientific criticism accompanying it, the *Jeune Femme* communicates a cooled eroticism, an excitation that has been internally regulated by its own anaesthetic. A viewer of this painting follows the work's psycho-motor directives, and in so doing comes to embody the same internal regulation modelled by Seurat. In other words, the communication reached between painter and viewer does not register a commonality on the grounds of a connoisseurial judgment of taste; it is, rather, a consensus between two functional energy economies. The work gives lasting form to a shared historical desire to communicate on the basis of an embodied experience of dynamic equilibrium. The painting is a vehicle of this hygiene.

What I first presented as a decorative element within the *Jeune Femme* might therefore represent a critical reminder to contemporary scholars not to reduce the constructivism of *L'Esprit nouveau* to its industrial futures. Indeed, when read alongside the science underpinning Seurat's reception, Seurat's constructivism is best expressed as a paradox of solidly defined forms with an achieved mobility on the plane of psycho-motoric perception. The "magnetic" effusiveness of the *Jeune Femme* represents but also *actualizes* an aesthetic whose central communicative principle integrates static and dynamic form. More than a painting, the work's construction enacts a play upon the nervous system: one that finds movement in stillness and a subtle but forceful excitation that comes alongside excitation's relief.

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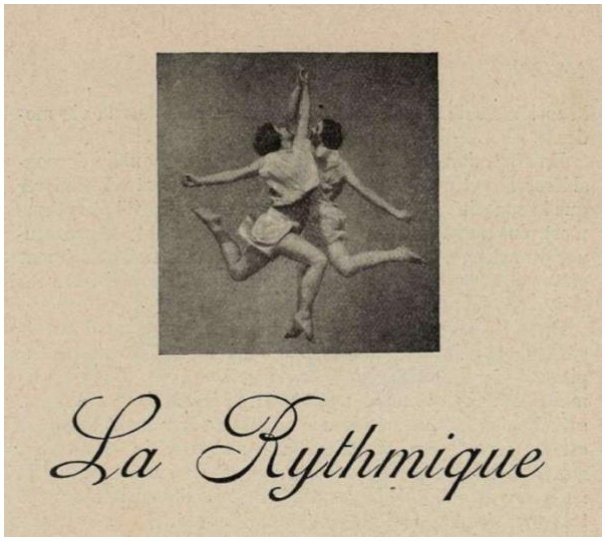
CHAPTER FOUR: RHYTHM

Albert Jeanneret's essay « La Rythmique », printed over issues n° 2 and 3 of the journal, campaigns for an "education founded on the study of rhythm" as the "base common to both art and life."[1] A similar principle appears in a recurring advertisement for Jeanneret's lessons in Dalcrozian eurythmics, which promise to "give the individual a more fertile knowledge of himself and [make] him a better organized individual, better equipped for modern life."[2] In such promotions of Dalcrozian rhythm, Jeanneret presents one of the journal's most explicit orthopedic pairings of societal recovery and pedagogical futurity. He prescribes, in no uncertain terms, a clear and direct link between the aesthetics of rhythm and the scientific promotion of health and hygiene.

And yet, most striking about Jeanneret's prescriptions are the images that support their cause: a series of photographs taken by the Swiss photographer Frédéric Boissonnas at the École Jacques Dalcroze (*circa* 1912). Jeanneret taught music and rhythmic gymnastics under Dalcroze from 1910-1914, during a short-lived period in which the practice of eurythmics was central to the social housing project established outside of Dresden, in the garden city of Hellerau ("bright meadow"). Along with Heinrich Tessenow's designs for the central *Festspielhaus* (a combination of training facility and auditorium hall), Boissonnas' photographs present one of the most compelling records of this brief utopian experiment in collective living.

[1] Albert Jeanneret, « La Rythmique », *EN* n° 2, 183. Albert Jeanneret, older brother to Charles Edouard Jeanneret (Le Corbusier) was a musician, composer and educator. Judi Loach has argued that Albert guided many of Le Corbusier's orientations on matters of philosophy and science. Judi Loach, "Architecture, Science and Purity," 207-44.

[2] Jeanneret, « La Rythmique », 183.



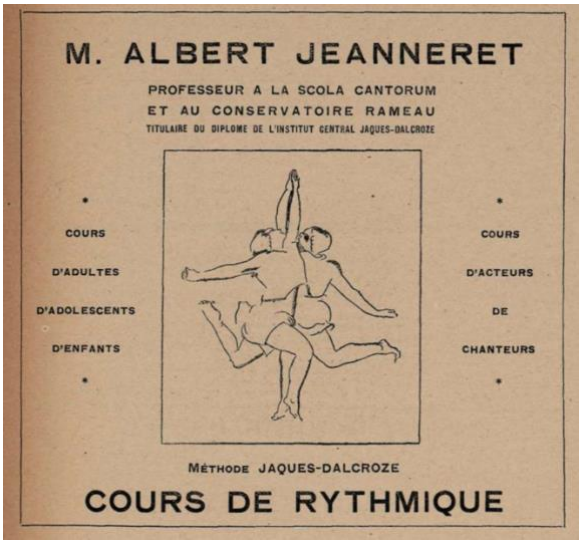


FIGURE 4.1 (left) Title Page for Albert Jeanneret, « La Rythmique », *EN* n° 2. Photograph by Frédéric Boissonnas.
FIGURE 4.2 (right) Advertisement for Albert Jeanneret's training in Dalcroze method, *EN* n° 4, n.p.

FIGURE 4.3 Heinrich Tessenow, Hellerau Festspielhaus, 1912.
Photograph by Frédéric Boissonnas.

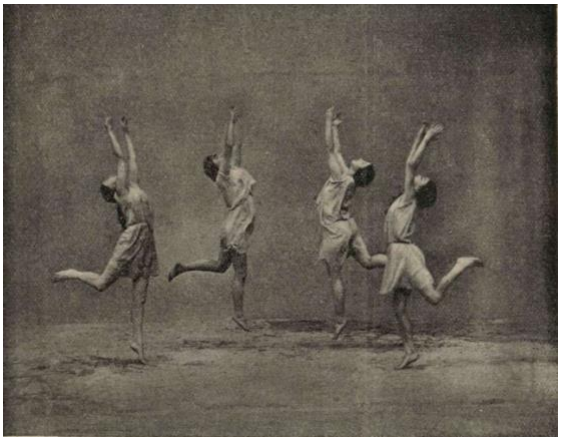
The journal's Boissonnas photographs present an iconography of aerial gestures (Fig.4.4). In Jeanneret's introductory image (Fig. 4.4a), two bodies cross one another symmetrically, their arms outstretched along a central vertical axis. Levity is introduced as a principle of solidarity

and communion. In the next image, a similar principle is extended to a small group of children (Fig. 4.4b). We see them following their leader in a "hop*"* suspended in mid-air.[3] Their feet are lifted high above the grass below, except for their leader, whose pointed toe suggests preparations for landing. Subsequent images showcase multiple bodies in a counterpoint of weight-distribution between back and forward kicking legs (Fig. 4.4f). Others present bodies that gesture dramatically towards the sky. More than once, Boissonnas captures a translucently clothed women as she makes her angelic departure (Fig. 4.4e). Later in the chapter, we shall see how such loosely fitted garbs were characteristic of a fin-de-siècle Hellenism deeply rooted in principles of energy hygiene. But here at the outset, I simply want to underscore how these photographs enable a clear, almost geometric, articulation of bodily gesture. Note how all limbs and extremities seem to conspire towards the same spontaneous victory over gravity.

Though such achievements may be commonplace today, it is worth recalling the novelty they represented in their own time. The Boissonnas images appear at a moment when photographic registration carried distinct promises within various fields of endeavour: they record for science an otherwise fleeting observation of animal locomotion; they capture dance and rhythmic gymnastics in ways that make *gesture* newly thinkable as a unit of aesthetic expression; and for the study of modern psychology (in its clinical, philosophical, and experimental forms), they help to reimagine an involuntary, suggestible body – converting it from a figure of pathology, into a new and salutary resource of untapped productive energies.

[3] The "hop" is a technical term. Later in the chapter, I'll describe its uses as a Dalcrozian exercise.


(a)

(b)

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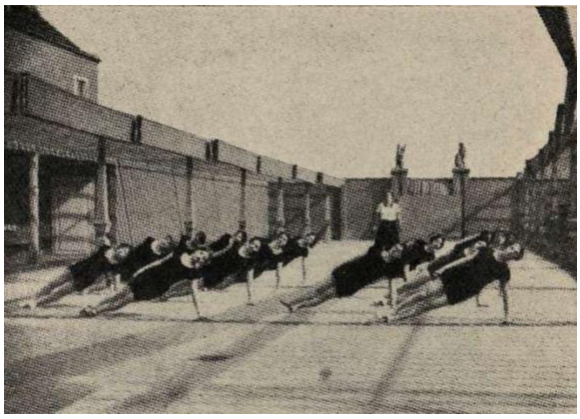
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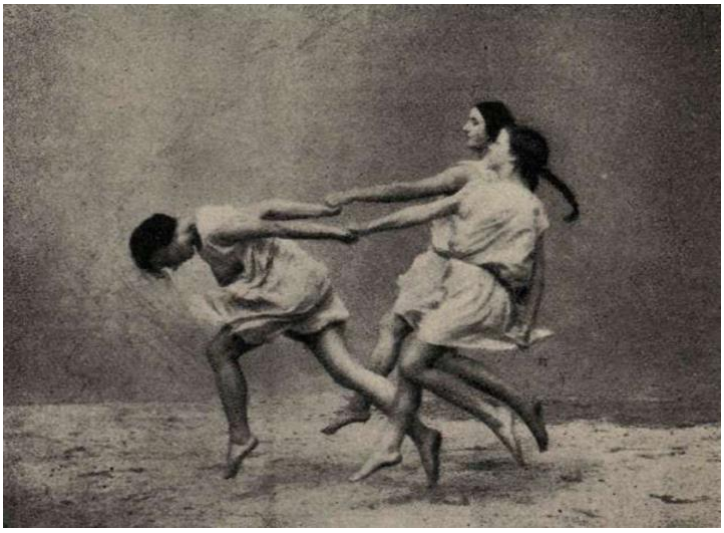
(f)

FIGURE 4.4 Frédéric Boissonnas, Students of Jacques Dalcroze, Hellerau, 1913. Reproduced in Albert Jeanneret, « La Rythmique », *EN* n°2-3.

In beginning to map out this terrain, let us begin with the final photograph which appears in Jeanneret's article (Fig. 4.4d). The image stands out for its brute austerity: a single instructor stands behind a classroom of students suspended diagonally upon their outstretched arms. Unlike other images in the series, its location has not been generalized by a white cloth draped in the background. They are in an outdoor courtyard adjacent to the *Festpielhaus*, described as a "sun bath" in Tessenow's designs for the Institute Yearbook of 1911.[4] Conceived to provide fresh air and natural light, the sun bath was one of the primary training grounds for eurythmic exercise. By the second year of its operation, Dalcroze was teaching upwards of 500 students. Some had trained with him in Switzerland or were professionals working in the Dresden Royal Opera; the majority, however, were simply the laborers and children of laborers affiliated with the furniture factory at the center of the newly built garden city.[5] In his end-of-year address to the students at the school, Dalcroze responds to their many queries into the "strange practices" to which their bodies were subjected in that garden.[6] He reports their questions regarding the coordination of bodily movements to an irregular combination of metres and timescales, unfamiliar to them within contemporary music. Dalcroze reiterates his intention to "regulate the movement habits," and to do so "not for the purposes of an aesthetic sense."[7] Rather, he says: "I considered them only from the psychophysiological point of view."[8] Dalcroze expounds the basic tenets Jeanneret

[4] On the links between Tessenow's design and reformist *Körperkultur,* see D. Ekici, "From Rikli's Light-And-Air Hut to Tessenow's Patenthaus: Korperkultur and the Modern Dwelling in Germany, 1890-1914" *Journal of Architecture* 13, no. 4 (2008): 387. Wolf Dohrn, "Die Aufgabe der Bildungsanstalt Jaques-Dalcroze," in *Der Rhythmus, Ein Jahrbuch*, Bd.I, Bildungsanstalt Jaques-Dalcroze, Hellerau (1911): 14.
[5] "Hellerau Institute," Accessed online Dec 1, 2022, http://www.kvl.cch.kcl.ac.uk/THEATRON/theatres/hellerau/category/origins.html
[6] Jacques Dalcroze, "What Rhythmic Gymnastics gives and what it Demands" in *Der Rhythmus. Ein Jahrbuch* 2 (1911): 32. Emile Jaques-Dalcroze, "Was die rhythmische Gymnastik Ihnen gibt und was sie von Ihnen fordert," in *Der Rhythmus, Ein Jahrbuch*, Bd.I, Bildungsanstalt Jaques-Dalcroze, Hellerau (1911): 32-57.
[7] Ibid, 33-34
[8] Ibid.

will repeat nearly a decade later: through new "motor habits," the body and its instincts are retrained; new "definitive automatisms" are established, yielding developments in temperament, will, and concentration."[9] Jeanneret recapitulates the Dalcrozian system in an explicit effort to revive elements of the pre-war Hellerau experiment within the post-war situation in France. He writes that an elaboration of this method is now due for the "pre-eminently Latin brain," which gives an opportunity to "concretize the natural tendencies of the race with regards to measure and rhythm."[10]

To the generation writing for *L'Esprit nouveau*, Dalcroze was exemplary in defining an aesthetic program oriented towards the health of the human body. Le Corbusier reportedly shared his brother Albert's enthusiasm for the timely nature of Dalcrozian eurythmics. Having visited Hellerau on three separate occasions – including for a thwarted collaboration with Tessennow himself – Le Corbusier subsequently wrote to Dalcroze, addressing him as one of the "key sources from whom the new spirit is derived."[11] The central tenets of Dalcroze's eurythmic exercise are cited in the journal, particularly when underscoring the psychophysiological basis for societal health at large. The hygienist Pierre Winter, encountered in the previous chapter, describes "*the Corps Nouveau*" using Dalcrozian principles, as does the engineer Paul Recht in a series of short, aphoristic articles about the natural sciences.[12] Recht describes the human as

[9] Jeanneret, « La Rythmique », 184.
[10]Jeanneret, « La Rythmique », 334, 335. Describing the origins of modern eugenics, Fabiola López-Duran cites the French economist Michel Chevalier, Saint-Simonian and collaborator of Napoleon III, who in the 1850s popularized the notion of a latin-race as the justification for France's political expansion into Spanish and Portuguese America. She writes: "Chevalier differentiated the Latin nations of Europe (France, Belgium, Spain, Italy, and Portugal) from Europe's Germanic, Anglo-Saxon, and Slavic nations, visualizing the Latin population of the Americas as an extension of a Latin European family under France's leadership and in contrast to the Anglo-Saxon population of the new world." Fabiola López-Durán, *Eugenics in the Garden: Transatlantic Architecture and the Crafting of Modernity* (Austin: University of Texas Press, 2018), 12-13.
[11] Marco De Michelis and Vicki Bilenker, "Modernity and Reform, Heinrich Tessenow and the Institut Dalcroze at Hellerau," *Perspecta* 26 (1990): 146. Van Moos points out that Le Corbusier attended classes at the Paris Dalcroze school in the 1920s. von Moos, *L'Esprit nouveau: Le Corbusier et l'industrie*, 23.
[12] Amongst Winter's affinities with the Dalcrozian project are his avowed Nietzscheism, his attention to "alternations of depression and excitement," a response to what he calls "our tiredness, our lack of energy," and the

composed of "multiple systems" scaled from the micrological to the macrological.[13] The science of health, he asserts, is about recognizing the interconnectedness between these systems and understanding how the same principles cross between them. As we shall see, rhythm had a cardinal place within the journal, precisely because it could be conceptualized across a range of physiological, psychological, and sociological registers. In its various definitions, rhythm exemplified the dream of a scientific aesthetics: providing an ideal orthopedic framework to heal an ailing population and forecast its newly ascendant futures.

In what follows, I suggest that the Boissonnas photographs index a moment in which rhythm enabled new linkages between artistic, philosophical, and scientific domains. I claim that these linkages were formative in redefining the aesthetic in its capacity for energy hygiene. To be clear, I am not interested in identifying an order of causation involving a chain of artists, scientists, and philosophers but, rather, in presenting how, both individually and collectively, the journal's authors and their sources contributed to a common set of metaphors underpinning the aesthetics of rhythm. Looking to these, I ask: how was the body conceived in combinations of language and visual representation that traversed art and science? And how were these metaphors applied to fields, seemingly disparate to us now, such as architecture and rhythmic gymnastics? By pursuing what Lakoff and Johnson have described as "orientational metaphors" – that is, a system of terms whose consistency is defined according to spatial coordinates – my argument is that an *ascensional* logic underlies late 19th- and early 20th-century studies of rhythm.[14] More than a simple valorization of height, I see rhythm's metaphors dramatizing the

movement of laboratory science into spaces of embodied action. "The spark came the day when, rich with the new science, some people confronted what they knew with what they felt. The laboratory became the sports field." Pierre Winter « Le Corps nouveau», *EN* n° 15, 1755-8.

[13] Paul Recht, « Equilibre », *EN* n° 2, 484.

[14] George Lakoff and Mark Johnson. *Metaphors We Live By* (Chicago: University of Chicago Press, 2003), 5. My area of focus here is borrowed from what Peter Sloterdijk has described as the "vertical tensions" constitutive of the Modern. Briefly, Sloterdijk's claim is that the modern is defined by a transition from the "spiritual acrobatics" of

moving body as a new form of aesthetic agency: a motor-sensibility capable of transforming gravitational force into expressive feeling in time.

The chapter proceeds in three sections. (1) I begin by situating Dalcrozian rhythm within the paradigm of modern energy science. I briefly revisit changes to the notion of force within the history of psychophysics, describing how aesthetic questions were newly framed as questions of "motoric" conversion. (2) From this larger context, I then turn more specifically to the field of experimental psychology, claiming that Boissonnas' photographs at Hellerau belong to a tradition of so-called "mediumistic" study. I situate Boissonnas amongst the fin-de-siècle scientists with whom he collaborated and propose a lineage of photographs to grasp the scientific import of his contributions to the journal. (3) From there, I return to the pages of *L'Esprit nouveau*, and consider how the Boissonnas photographs register a new adjacency between architecture and rhythmic gymnastics. I look at the models of aesthetic agency and communicability that underpin this adjacency and suggest their implications as questions of energy hygiene.

Aesthetic Force

In citing the Dalcrozian experiment at Hellerau, the collaborators of *L'Esprit nouveau* signaled a return to the social and scientific theories tested therein. Common to these, I suggest, is (a) a

romantic Judeo-Christiandom to a new post-Nietzschian science of worldly ascensions. While common to both is a subject conceived as the agent of its own betterment - for Sloterdijk, the legacy of post-Renaissance Europe is one of *anthropo-technics* - an essential shift occurs when the vertical orientations once expressed by metaphysics are translated into a newly scientific and materialist paradigm. Previously, he writes, "[c]ountless people were trained as acrobats of the world above. . . Practiced in the art of crossing the abyss of the 'sensual world' with the balancing pole of asceticism." The modern, he claims, does not abandon these practices altogether, but rather adapts their ascensional logic to a new materialist worldview. One form of acrobatics is simply replaced by the next. Peter Sloterdijk, *You Must Change Your Life: On Anthropotechnics*, trans. Wieland Hoban (Cambridge, UK: Pol, 2013), 64.

conception of the body as a reservoir of invisible, unruly, and untapped energies, and (b) an elaboration of techniques to make these new resources available to the social collective at large.[15] Wolf Dohrn, the first executive director of the German *Werkbund*, and the person responsible for placing eurhythmic exercise at the very center of Hellerau's social vision, represents this confluence of theory and practice. Telling of his dual training in political economy and aesthetics (his doctorate was completed under the supervision of the philosopher Theodor Lipps), Dohrn's inaugural address at Hellerau imagines a new synthesis between art, health, and capitalist production. His comments rely heavily upon the "sober economist" Karl Bücher, whose *Arbeit und Rhymus* (1896) had popularized the notion that rhythm could have remedial effects on advanced industrial society.[16] By ethnographically comparing more "primitive" societies against the "zoo of modern urban life," Bücher argued that new pathologies such as neurasthenia and fatigue could be traced to the neglect of the body and its natural rhythms.[17] Inspiring Hellerau was Bücher's ambition to reform the modes of industrial production into a new "culture of living" (*Wohnkultur*).[18]

In Dohrn's address to the community at Hellerau, he introduces rhythm as a "remarkable human force." "One could almost dare to make a comparison and say that Jacques-Dalcroze has given us as much in rhythmic body movements, the rhythm to master and utilize this psychic natural force, as the technical inventors taught us with the elasticity of steam or of electricity."[19]

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[15] These broad ambitions are most palpable in the way the Hellerau Festpielhaus was conceived in deliberate contrast to the culture of spectacle: "All visitors to the school festivals" Dalcroze writes in the Yearbook, "understand that we do not want to give them a theatre performance, an eye and ear candy"; moreover, " it is not the work of a year, but of a generation [that] needs to develop and bear fruit." Dalcroze, "Was die rhythmische Gymnastik Ihnen gibt und was sie von Ihnen fordert," 35.

[16]Karl Bücher, *Arbeit u*nd *Rhythmus*, (Leipzig: E. Reinicke, 1899).

[17] Michael Cowan, "The Heart Machine: Rhythm and Body in Weimar Film and Fritz Lang's Metropolis," *Modernism/modernity* 14, no. 2 (2007): 228.

[18] H.F. Mallgrave, *From object to experience: The new culture of architectural design* (Vancouver: Bloomsbury Publishing, 2018), 16.

[19]Dohrn, "Die Aufgabe der Bildungsanstalt Jaques-Dalcroze," 6.

Dohrn's analogy compares rhythm to a revolution within the mechanical sciences. Following Bücher, he is suggesting that a reversal of the body's neglect has the potential to summon a forgotten reserve of productive energy.[20] This harnessing of energies was typical of the science supporting Dalcroze, and while outwardly *productivist* – i.e., optimistically poised for the rearing of a new generation – it was equally shaped in response to social pathologies.[21] What I have been describing as an orthopedic logic is particularly acute with reference to Dalcroze, since, as we shall see, so much of his theory is ultimately geared towards pedagogical purposes. For instance, large segments of Dalcroze's lectures at Hellerau address his students' fatigue as part of a widespread malady for which rhythm is the best prescription.[22] In his usage, fatigue refers not simply to a shortage of energy but, rather, to the effects of energy's mismanagement, often as a result of overstimulation.[23] Dalcroze repeatedly chastises his students: "How many of you go to the theatre, to concerts, and exhaust your nervous system!"[24] A similar polemic against overstimulation is expressed by Dohrn, who defends the uses of rhythm from the amusements of "pleasure seekers" and the "*feuilletonistic* appeal of a new idea."[25] At the level of discourse no less, it seems that overstimulation is broadly conceived as a danger to one's overall energy economy.

[20] While sometimes Dohrn locates this reserve within the unconscious body and its instincts, he more commonly assigns it to the threshold between the two. It is the "border between the conscious and the unconscious" Dohrn writes, "where the productive in man takes shape." Ibid., 1.
[21]Rabinbach, *Human Motor*, 61.
[22] "An educator must not be tired!" he exclaims, "His day is to live a normal, healthy, vigorous life for others. As for the others, the poor inexperienced who get tired because their work has no rhythm yet, come and see me as soon as you are tired. I have an immense need to help you." Dalcroze, "Was die rhythmische Gymnastik Ihnen gibt und was sie von Ihnen fordert," 53
[23]Freud termed this "circular neurasthenia." See Rabinbach, "Neurasthenia and Modernity," 178.
[24] Dohrn, "Die Aufgabe der Bildungsanstalt Jaques-Dalcroze," 8.
[25] Dohrn, "Die Aufgabe der Bildungsanstalt Jaques-Dalcroze," 8.

Within the context of Dalcrozian eurythmics, rhythm is defined as a dynamic counterpoint of tension and rest.[26] Where in gymnastic exercise, these dynamics are conceived psychophysiologically as a retraining of the body's motor habits, this same principle can also be scaled up to the more quotidian aspects of daily life (what Dalcroze speaks to in addressing the students' management of their own psychological expenditures). Additionally, rhythm was theorized as a channel of aesthetic communication – one that was exemplified, though by no means limited, to encounters with the moving body. To appreciate this dimension of the Dalcrozian project, consider the designs for the central auditorium of the Hellerau *Festpielhaus*, made in three-way collaboration between Dalcroze, the architect Heinrich Tessenow, and the architect and stage designer Adolphe Appia (Fig. 4.5). Appia recounts that a central motivation for the design of this space was, as he put it, to "overthrow the passivity" of traditional performances and to activate the audience with the same rhythmic fluctuations embodied by the Dalcrozian-trained dancers.[27] To achieve this end, Appia worked with the painter Alexander von Salzmann in developing a system of electric lighting that was integrated behind walls and ceilings that had been stretched with oiled canvas.[28] In his article, Jeanneret recalls how this

[26]This usage of rhythm in the sense of a recurring fluctuation between elements (here tension and release) is a modern phenomenon which grew in popularity in the 19th century. Previously, a Vitruvian or Albertian usage of rhythm suggested a more spatialized distribution of parts within a whole. On this larger history see Pascal Michon, "Rhythm as Aesthetic Category (Part 1)," *Rhuthmos*, Accessed January 1, 2019, https://rhuthmos.eu/spip.php?article2284. Dalcroze developed this dimension of his thinking in collaboration with the Geneva-based psychologist Edouard Claparède, whose *Experimental Pedagogy and Psychology of the Child (1911)* outlines a branch of experimental study he calls *psycho-technics*.

[27]Ross Anderson, "The Appian Way," *AA Files* 75 (2017): 176.

[28] Incidentally, von Salzmann was Jeanneret's roommate at Hellerau. On this relation see, Michelis and Bilenker, "Modernity and Reform," 146. Michelis describes the room as follows: "The final design was fashioned ingeniously. It called for coating the walls and ceilings of the room with two layers of white cloth, infused with wax, at one-meter intervals. Inside, thousands of small light bulbs, with adjustable intensity, formed a kind of 'luminous organ,' which produces an immaterial and diffuse light. It is completely adjustable, ranging from total darkness to the most resplendent light. The system adapts perfectly to the architecture of the room that Tessenow and Appia designed, like a large parallelepiped without fixed installations, in which either the stage or the bleachers for the public can be configured in any manner thanks to the movable parts. Neither scene nor curtain interrupts the continuity of the space that opens at one end of the large garden in the back. Marco de Michelis, « L'Institut Jacques-Dalcroze à Hellerau », in *Adolphe Appia ou le renouveau de l'esthétique théâtrale*, ed. Richard C. Beacham (Lausanne: Payot, 1992), 39–40.

innovation allowed the entirety of the hall to be illuminated equally, and to thereby avoid the lulling effects of darkness: "spectators and extras will be bathed in the same luminous atmosphere, this in reaction against the usual lighting of the stage, which . . insulates the audience who remain immersed in an indifferent shadow."[29] A similar principle dictated that performers and audience members enter the room through the same set of tripartite entry doors, positioned at the center of the hall. Whereas traditional performance spaces reinforced a separation of artist and spectator, here the intention was to create aesthetic conditions that underscored their shared experience as living bodies. My proposal is that we see the *Festaal* auditorium as indexing a desire to find, in one's corporeal responsiveness to the dynamics of rhythm, a new medium of social consensus.

However, to better understand these communicative dimensions of rhythm, it is important to first situate Dalcroze's teachings within a history linking aesthetic experience to concepts of energy and force. In the previous chapter, I explored with reference to Charles Henry how the study of aesthetics had undergone important transformations in dialogue with 19th-century energy science. These changes reflected how prevailing notions of mechanical "force" (defined as the capacity to move mass over distance) were gradually superseded by notions of thermodynamic "energy." In its new scientific usage, this term described a multifarious, dynamic, and now-also potential capacity for doing "work."[30] At all scales of the human organism, from cell biology to the urban crowd, the relevant science was aimed at explaining how energy is converted from one state into another.[31]

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[29] Jeanneret, « La Rythmique », 333-334.
[30] Bruce Clarke, *Energy Forms: Allegory and Science in the Era of Classical Thermodynamics*, (Ann Arbor: University of Michigan Press, 2001). 4.
[31] The tenets of the new energy science were developed in tandem with evolutionary biology. In Germany, Ernst Haeckel conceived of complex psychic functions as vibrations in cellular protoplasm; while in the UK, Herbert Spencer and Alexander Bain popularized the notion of the animal organism as an energy transforming system. Bain's notion of an energy "storehouse" or "reservoir "as it was later taken up in France, conceived of a nervous

For the study of aesthetic experience, concerns with energy conversion do not abruptly replace conceptions of mechanical force so much as introduce new inflections and layers of investigation. In Germany, for instance, Dohrn's teacher Theodor Lipps belongs to a line of thinkers who develop the concept of "empathy" to explain the body's responsiveness to a world of objects permeated by mechanical force. A common feature of this discourse is understanding how the language of forms communicate (i.e., convert energetically) the statics and dynamics of the mechanical universe.[32] In this newly "kinaesthetic" tradition, force represents an older mechanical concept, newly taken up as a question about energy and how it is converted when crossing the thresholds of human perception.[33] The relevant philosophical tradition for Dalcroze and the predominantly French language thinkers who developed the science of rhythm, characterized the body as "sympathetically" charged by the external world. Under the French

system that operated not only as a reflex towards external stimuli, but which also produced its own sources of movement, requiring both channeling and discharge to maintain the health of the organism. Bain writes: "There is a central fire that needs no stirring from without." Quoted in Kurt Danziger, *Naming the mind: How psychology found its language* (London: SAGE Publications Ltd, 1997), 61-62.

[32]A concise introduction to this lineage appears in Malika Maskarinec, *The Forces of Form in German Modernism*, 6-10.

[33] I am using the word here in the sense described by Alexander, as form "ratiocination associated with kinesis, the movements of the body." Alexander, *Kinaesthetic Knowing*, 10.

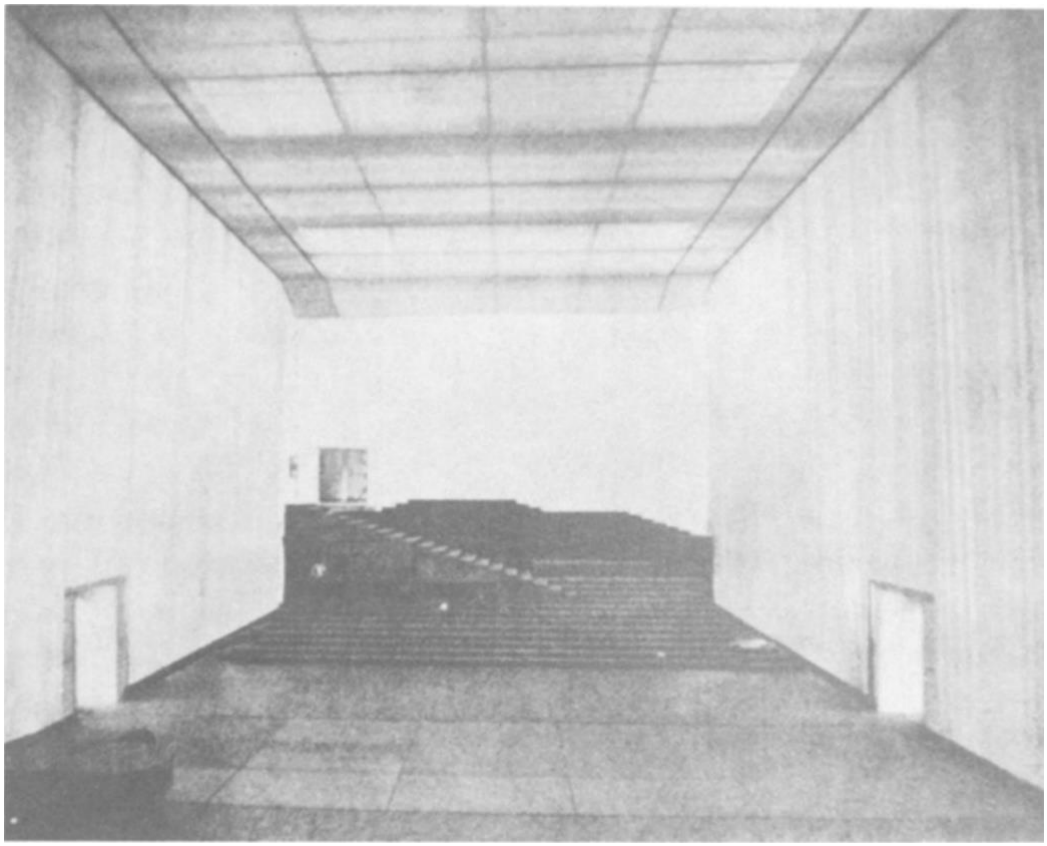

FIGURE 4.5. View of moveable set designs by Adolphe Appia, Hellerau Festpielhaus, circa 1913. Reproduced in Gerda Wangerin and Gerhard Weiss, *Heinrich Tessenow* (Essen: Bacht, 1976).

educational reforms of mid-19th *Ecclecticism*, these theories of aesthetic sympathy became standard curriculum within the French Lycée.[34] Victor Cousins and Théodore Jouffroy expounded a notion of sympathy that emphasized the role of the aesthetic in unifying the subject, conceived of as tripartite (i.e., eclectic) coordination between the active will, the sensible body, and the rational mind.[35] Under this mapping of the *moi intérieure*, aesthetic experience is neither a feature of objective beauty nor a statement of subjective taste; rather, it is sympathetic communion between the external world and that which is most forceful and cohesive within the

[34] On this history, see Jan Goldstein, "Ecclectic Subjectivity and the Impossibility of Female Beauty," in Caroline A Jones, Peter Galison, and Amy E Slaton, *Picturing Science, Producing Art*, (New York: Routledge, 1998.) 360-78.
[35]Jouffroy writes « Les symboles naturels de la force sont la condition du sentiment esthétique. » Théodore. Jouffroy, *Cours d'esthétique* (Paris: Hachette, 1875), 201.

human subject: the will. In his *Cours D'Esthétiques (1875),* Jouffroy writes: "Wherever force triumphs, man triumphs too; wherever force succumbs, he is afflicted by its fall and shares in its disaster. This is the secret of sympathy."[36] For Dalcroze and others in his generation, Jouffroy was foundational to understanding how the immediacy of embodied experience could communicate through the language of force.[37]

For experimental psychologists of the 1880s and 1890s, the subject's unification under the will becomes an untenable "spiritualist" orthodoxy of the past, and a new set of experiments seek to address that which is "forceful" within the human subject.[38] *Habit* and *automaticity* become the new behavioral catchwords of a science that now attempts to imagine the subject without neatly dividing between its voluntary and involuntary activities. As historian Bruce Clarke puts it, it is as though the human body ceased to be imagined as a machinery of levers and gears (i.e., passively transmitting the mechanical force of an external "spiritual will") and began instead to be addressed as a system of energetic conversions.[39] Under the direction of Théodule Ribot, the *Revue Philosophique* helped to secure the centrality of the motor functions as "constitutive" of the "states of consciousness."[40] He demonstrated that conventional "faculties" of human consciousness (memory, imagination, etc.) could be better understood as motoric phenomena.[41] The notion of an "idée fixe," for instance, once a touchstone of clinical diagnosis,

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[36] Ibid., 20.

[37] Estelle Thibault has written the most comprehensive history of this lineage, describing how it passes from Humbert de Superville's "unconditional signs" to Charles Blanc's *Grammaire*, while also dividing between the timelessness of "expressive energies" in Charles Lévêque's *Science du Beau* and the more epoch-centered historicism of Cesar Daly and Hippolyte Taine. Estelle Thibault, « Entre expression et sensations : les esthetiques scientifiques de l'architecture en France, 1860-1950 »(PhD diss., Université Paris VIII. Saint Denis, 2005).

[38] Goldstein, "Neutralizing Freud," 57.

[39] As with the German context, an older notion of force remains central to studies of aesthetic experience. But whereas it was once conceived mechanically in relation to a quasi-spiritualized individual will, it is now increasingly conceived energetically – as a question of motion that is perceived, stored, and further transmitted by the human body and its nervous system. See Bruce Clarke, *Energy Forms*, 4-6.

[40] Théodule Ribot, "Les Mouvements et leur importance psychologiques," *Revue philosophique* 8 (1879): 383. Cited in Brain, *Pulse of Modernism*, 54.

[41] Ribot writes: The origin of will is in the property which living matter has of reacting, its end is in the property

could be described as an instance whereby a static calcification in the "facts of consciousness" yielded a morbidity of the healthy functioning organism. Or, by contrast, static images could also be shown to provoke new expressions of dynamic force.[42] Scientists such as Charles Féré and Charles Richet used the notion of "psycho-motor induction" to address how ideas and images (even when virtual) translated into a gain in proprioceptive motion.[43]

Within a more clinical setting, Charcot at the Salpetriere, and Bernheim and Lieubault at the École de Nancy, were amongst the doctors now reconceptualizing the question of individual force through experiments with hypnotism and automatic process. While the prior generation of doctors distanced themselves from *induced somnambulance* (widely dismissed as a vestige of "mesmerist quackery"), in the 1880s, hypnotism regained its legitimacy as a science for exploring the subject under a variety of "suggestive states."[44] Though often disagreeing about the nature of the phenomena they studied, the efforts of these various clinics contributed to a science which unseated the centrality of a conscious and willing subject, while newly locating a dynamic (and sometimes intelligent) principle within the unconscious body.[45] It is within this context that the figure of the "medium" reemerges as a legitimate object of study

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which living matter has of acquiring habits; and it is that involuntary activity forever fixed which serves as support and instrument to the individual activity." Théodule Ribot, *The Diseases of the Will,* trans. Merwin-Marie Snell (Chicago: Open Court Publishing Co., 2011), 25.

[42] Ellenberger, *Discovery of the Unconscious*, 366.

[43] The term is used by Charles Féré, who we encountered in the previous chapter: Charles Féré, *Sensation et mouvement: Études expérimentales de psycho-mécanique* (Paris: F. Alcan, 1887), 14.

[44] Ellenberger claims the year 1882 as a watershed, following Charcot's paper read to the *Academie des Sciences*,"bringing about an official rehabilitation of hypnosis, which suddenly acquired scientific status." Ellenberger, *Discovery of the Unconscious*, 87.

[45]Leon Chernok argues that this moment is marked by variety of experimentations without a singular model: "What strikes one as characterizing this last part of the nineteenth century in France is that no prevalent theory came to the fore. On the one hand, a series of physicians experimented on the hypnotic phenomena, and while compelled to concede that the unconscious exists and may determine a part of our conscious actions, they generally confined themselves to experimentation." Léon Chertok, "The Unconscious in France before Freud: Premises of a discovery," *The Psychoanalytic Quarterly*, *47*(2), (1978): 204. See also the work of Sonu Shamdasani on the debate between Flournoy and Janet as to whether the unconscious could be considered an active intelligence. S. Shamdasani, Automatic writing and the discovery of the unconscious," *Spring* 54 (1993): 100–131.

Photographing the Unconscious Body

My claim is that Boissonnas' photographs at Hellerau present the body in a mode of semi-unconscious suggestibility previously observed within the séance and clinic. The leaping figures captured in the Boissonnas photographs index a fin-de-siècle moment which inverted the tendency to see the unconsciously moving body as an instance of pathology. Against the crises and contortions of Charcot's *La nouvelle iconographie photographique de la Salpétrière* (1890), Boissonnas was amongst a generation that sought to understand the body's heightened states of suggestibility, not as pathologies of the will, but rather an exemplary instances of motive force (Souriau), health (James), creativity (Bergson), imagination (Ribot), and genius (Séailles).[46] The figure of the *medium*, briefly dispelled by establishment science, made its return at the fin-de-siècle, promising to shed light on "one of the most promising and least explored provinces of our nature."[47] This description appeared in the preface of Émile Magnin's *Art and Hypnosis* (1907), a study of the "sleep dancer" Madeleine G. with photographs by Frédéric Boissonnas. The preface was written by Théodor Flournoy, Chair of Experimental Psychology at the University of Geneva. Flournoy was the first psychologist in Europe to be hired by a Faculty of Science as opposed to philosophy. His endorsement of Magnin's book was a telling instance of a newly-positivist reappraisal of the medium.

[46] Paul Souriau, *L'esthétique Du Mouvement* (Paris: F. Alcan, 1889); William James, *The Principles of Psychology* (Chicago: Encyclopaedia Britannica, 1986); Henri Bergson, Creative Evolution, trans. Arthur Mitchell (Basingstoke ; Palgrave Macmillan, 2007); Théodule Ribot, Essay on the Creative Imagination, trans. Albert Heyem Nachmen Baron (Chicago: Open Court Publishing Co., 2012) ; Gabriel Séailles, *Essai sur le génie dans l'art* (Paris: F. Alcan, 1902).
[47] Emile Magnin, L'Art et l'hypnose, (Paris: Alcan, 1907).

Against Charcot, Janet, and Binet, each of whom had a pathologized the 'suggestibility' of the medium as an instance of hysteria, Flournoy and Magnin belonged to a cohort of experimental psychologists who considered the medium as a case study by which to hypothesize normal psychological processes at the thresholds of consciousness. However, to claim the scientific validity of hypnosis, they had to disavow the prevailing theories that treated the medium as a spiritual or para-psychological phenomenon. Magnin's *Art and Hypnosis* presented an important instance of this reclaiming of the medium for experimental psychology – and in no small part because of how Boissonnas' photographs redefined the visual codes representing an unconscious body in space.

I will briefly revisit the book's premise: In 1902, Magdeleine Guipet visited Magnin at the *École de Magnétisme* in Paris, suffering from headaches believed to be of neurasthenic origin. Ruling out hysteria, Magnin's hypnosis revealed Guipet's uncanny capacity to translate sound into movement. An article in the popular magazine *Paris Illustré* reported that Magnin had discovered a talent comparable to the greats of contemporary dance, Louïe Fuller or Sarah Bernhardt, but with one crucial difference: "she is unconscious of what she does; her will is dormant; her gestures, her attitudes, her changing expressions, her physical power are not the result of study."[48] The doctor-patient duo travelled to Munich in 1903, where the famed para-psychologist Albert von Shrenck-Notzing hosted popular performances, first for the artists and doctors of the *Psychologische Gesellschaft,* and then over three nights at the *Schauspielhaus* theatre.[49] Amazingly, these dramatizations of hypnosis – which actually began with Magnin on stage – were intended to strengthen the empirical wing of the Munich society against its own

[48] Arsène Alexandre, « Magdeleine et la Suggestion musicale », *Paris Illustré*, February 10, 1904, 12–15
[49] Eidenbenz, "Hypnosis at the Parthenon," 3.

spiritist collaborators.[50] As we learn from the introduction to Magnin's 1907 text, these performances were part of a concerted effort to record, under the authority of science, processes of the aesthetic unconscious previously reserved for the spiritist séance.[51]

Magnin's 1907 text positions itself within a lineage of photographs that document a similar amalgam of science and aesthetics. The "first documents," Magnin writes, are a set of photographs produced in 1887 by the psychical researcher Albert von Schrenck-Notzing, in collaboration with the painter Albert von Keller. The images were used to observe the magnetized hypnosis of Mademoiselle Lina as she responds spontaneously to music.[52] In the photographs referred to here, Lina appears in a small interior space encircled by doctors. Her gesture, one arm raised in abandon, is brightly lit by an artificial lamp, while the rest of the room is darkly shadowed. While it is tempting to see these high contrast scenes as dramatic remakings of painterly tradition, more trenchant is Robert Brain's suggestion that we see this moment as one deeply concerned with the problem of recording itself. For Brain, Shrenck-Notzing was representative of a moment which sought to "materialize the medium" by registering previously spiritualized phenomena as vibrational forces transmitted at frequencies imperceptible to the human eye.[53] (It was hypothesized, quite literally, that the body's biological substance extended beyond the body's limits in a filmy gauze; its protoplasm was transformed into ectoplasm.) Brain writes: "In order to capture the fleeting, dynamic appearance of the materialisation, the space of the séance had been turned into an experimental laboratory featuring an armory of

[50] A history of these divisions can be found in A. Sommer "Policing Epistemic Deviance: Albert Von Schrenck-Notzing and Albert Moll," *Medical History* 56 no. 2 (2012): 255–76; On the importance of American spiritism for the development of European psychology, see Ellenberger, *Discovery of the Unconscious*, 84-85.
[51] Robert Michael Brain, "Materialising the Medium: Ectoplasm and the Quest for Supra-Normal Biology in Fin-De-Siècle Science and Art," in *Vibratory Modernism,* ed. Anthony Enns and Shelley Trower (London: Palgrave Macmillan, 2013), 115-144.
[52] Magnin, *L'Art et l'hypnose*, 8.
[53] Robert M. Brain, "Materialising the Medium," 115-144.

'mechanical self-recording instruments': dynamometers, radiometers, electroscopes, and photographic plates. . . It was as if the séance gathered into itself the whole history of capturing, storing and fixing images of all kinds into a glorious dénouement."[54] By this reading, the brightly lit Lina surrounded by doctors should be read in relationship to the still frames of ectoplasmic cinematography – i.e., as the bodily macrocosm of the fluid emanations purportedly moving beneath the threshold of the visible.[55]

Following these first documents is a collection of photographs published by the photographer Peter Nadar (son of the famed Nadar) and Colonel del Rochas, a military engineer who became one of France's leading psychic researchers at the fin-de-siècle. Rochas' 1887 work *Les Forces non Definiés* had directed earlier studies on ancient mechanics into a search for an empirical basis to observe the magnetized fluids that acted upon the human nervous system. Rochas conceived of human sensibility as an astral body, a magnetized forcefield that hovered like a "garment" over the human anatomy (Fig. 4.6).[56] In the collection referred to by Magnin, *Les Sentiments, La Musique, et les Gestes (1900),* Rochas collaborated with Nadar to record the medium Lina unconsciously inhabiting a catalogue of sensibilities provoked by texts, musical scores, and interior mise-en-scène. We are meant to read her gestures not only in relation to the prompts which she was given (a phrase of Chopin, Wagner, etc.) but also against a backdrop of mountainous landscapes, or in densely carpeted, ethnically specified interiors (Fig. 4.7) In their dramatic artifice, Rochas' photographs mark a clear effort to pictorialize the body's unconscious sensibility as a function of the surrounding environment.

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[54] Ibid., 132.
[55] See Linda Dalrymple Henderson's discussion of Flammarion in Linda Dalrymple Henderson "Vibratory Modernism: Boccioni, Kupka, and the Ether of Space, "in *From Energy to Information: Representation in Science and Technology, Art, and Literature* (Redwood City: Stanford University Press, 2002), 132.
[56] Albert da Rochas, *Les forces non définies* (Paris: G. Masson, 1887); Albert da Rochas, *L'Exteriorization de la Sensibilite: étude expérimentale & historique* (Paris: Chamuel, 1895), 212-214.

From these interior depictions of the medium, we can already begin to understand the significance of Magnin's decision to photograph Madeleine G. in the native landscapes of the Greek Acropolis. The series was undertaken in the summer of 1903, shortly after Boissonnas had returned from a trip in which he completed a first and monumental series on the Parthenon.[57] Using a ladder perched at the same height of the entablature, Boissonnas documented the sculptural elements of Greek architecture with unprecedented detail (Fig. 4.7).[58] Above all, it was the gestures of the Phidian frieze that were conceived as the secret treasury of an ancient sensibility. The frieze – which Isadora Duncan had popularized as a touchstone of Hellenic revival – was used by critics to describe the hypnotic movements of Magdeleine G.[59] For the photographs in *Art and Hypnosis*, however, no architectural mise-en-scène was necessary. Rather, taking consecutive snapshots within the open landscape, Boissonnas and Magnin effectively brought the interior séance into the open air. An incredible photograph from the Boissonnas archive shows a piano set up beside a tripod, Magnin with his hand raised to Madeleine's forehead (Fig. 4.6). Here Magnin is seen using the so-called N-Rays to magnetize the medium into a new state of receptivity. But interestingly, this initial moment of hypnosis is not featured in the main collection of photographs later published by Magnin. The focus of the new science had shifted away from figure of the doctor standing on the periphery of the séance. It has likewise shed the elaborate mise-en-scène of the previous experiments. Instead, Boissonnas conveys a new set of criteria for scientific clarity: open air and natural light.

[57] Later published as F. Boissonnas and Daniel Baud Bovy, *En Grece par Monts et par Vaux*, (Genève : F. Boissonnas, 1910).
[58] The images appear in Le Corbusier, « Architecture: pure creation de l'esprit », *EN n°16*, 1903-1918.
[59] Magnin cites a journalist Madame Séverine: "a statue that has emerged from the frieze of the Parthenon; she is all of Greece and all of antiquity." Madame Séverine, *Gil Blas*, (May 23, 1903); reprinted in É. Magnin, *L'Art et l'Hypnose* (note 2), 284. Both are discussed in Céline Eidenbenz. "Hypnosis at the Parthenon," Études Photographiques 28 (2011): 7.

FIGURE 4.6 (left) "Astral body" photographed by Paul Nadar, 1896. Made in Collaboration with Colonel Albert de Rochas d'Aiglun for the making of *Les forces non définies* (Paris: G. Masson, 1887).

FIGURE 4.7 (right) "*Danse Arabe*" photographed by Paul Nadar. Appears in Colonel Albert de Rochas d'Aiglun, *Les sentiments, la musique et le geste* (Grenoble: Lib. Dauphinoise, 1900).

FIGURE 4.8 Frédéric Boissonnas, Photograph of Emile Magnin and Madeleine G. during the making of *Art et hypnose,* 1903. Fondation F. Boissonnas, Geneva.

I present this short lineage of photographs to underscore the very newness of the visual codes presented by the Boissonnas photographs. From the interiors of the laboratory séance to the air and sun baths of a Hellenized outdoors, my claim is that these images documented a new way of thinking about the unconscious body. Replacing the hypnotisms of an extraordinary and often pathologized medium, Boissonnas' figures now presented a moving body which was exemplary of a universal mechanics available within aesthetic experience at large.[60] Boissonnas' photographs suggest that something could be gained from tapping into the body in a mode of unconscious suggestibility. Moreover, pulling Magnin out of the picture and placing the medium in the fresh air of the Greek acropolis rethinks what this suggestibility entails. What was once a clinical situation foregrounding the communication of the doctor-patient relationship is now a predominantly aesthetic situation, emphasizing the body in its motor responsiveness to the surrounding environment. Both in his collaboration with Magnin and in his documentation of Dalcrozian eurythmics at Hellerau, clarity of vision, levity, and light become the hallmarks of a newly positivist appraisal of the medium. This is not a refusal of the unconscious but rather a salutary remaking of its features in a new Apollonian light.

[60]As Sonu Shamdasani notes in his introduction to Flournoy's *From India to the Planet Mars*, interest in the medium began to wane around 1900, and "the 1909 *Congress of Experimental Psychology* in Geneva, over which Flournoy presided, was the last at which medium ship featured on the agenda." Sonu Shamdasani, Encountering Helene: Theodore Flournoy and the Genesis of Subliminal Psychology, in Theodore Flournoy, *From India to the Planet Mars: A Case of Multiple Personality with Imaginary Languages*, ed. Sonu Shamdasani (Princeton, N.J.: Princeton University Press, 2015) xli.

Figures of Ascension

On what grounds did the Dalcrozian science of rhythm promise a return to a lost source of energy hygiene? We saw above how this promise was pursued in the embodied responsiveness of the medium, newly conceived as a model of health. I now want to address that responsiveness more precisely, by establishing its central features for both Dalcrozian rhythm and its ancillary sciences. I will briefly explore the emergence of rhythm within 19th-century Hellenism, and describe how this lineage was integrated into new studies in movement. I will then return to the Boissonnas photographs, claiming that they index a moment wherein aesthetic agency was newly conceived as a motor-sensibility transforming gravitational force into expressive feeling in time.

From its origins, the scientific vanguard of Dalcrozian rhythm was rooted in philological Hellenism.[61] A generation before Bücher saw rhythm's potential to reclaim an earlier wisdom, Nietzsche popularized the notion that the return to an Ancient Greek sensibility could provide access to a forgotten "reservoir" of creative energies.[62] Nietzsche's "philology of the future" was an attempt to regain access to an archaic temporality that had been buried under the subsequent logocentrism of Western culture (a loss he attributed to the linguistic pairing of meaning with syllabic stress).[63] His early research into this lost sense of rhythm, from which he formulated his categorical divisions between Apollonian and Dionysian cults, circulated in French and English translations that first appeared in the mid 1890s.[64] In France, Nietzsche's philological project was shared by the composer Maurice Emmanuel. In his *Études de la Dance Grecque,* Emmanuel analyzed the human forms painted on Ancient Greek ceramics.[65] Working from an iconography

[61] James I. Porter, *Nietzsche and the Philology of the Future*, (Stanford, Calif.: Stanford University Press, 2000).
[62] See Rabinbach, "The European Science of Work," 477; See also Maskarinec, Malika. *The Forces of Form*, 6.
[63] Porter, *Philology of the Future*, 134-135.
[64]Porter, *Philology of the Future*, 159-166. On Nietzsche's translation into French, see also: C.E. Forth, *Zarathustra in Paris* (DeKalb: Northern Illinois University Press, 2001).
[65] Maurice Emmanuel, *La Danse Grecque Antique D'après Les Monuments Figurés* (Paris: Hachette, 1896).

of individual gestures, he attempted to recreate specific movement sequences, using the chronophotographic techniques then popularized by the physiologist Étienne-Jules Marey (Fig.4. 9).[66] While this work was popular in its own right, it was merely the scholarly ancillary to a more widespread craze for the American dancer Isadora Duncan, whose performances attempted a similar revival of a lost Hellenic sensibility. In the so-called bacchic dances that she toured throughout Europe from 1899 to 1900, Duncan's bare-footed movements in loosely fit garb espoused a Hellenism which she claimed to be Nietzschean by inspiration. [67] The terms of this affiliation were aesthetic, but also philological: she *too* saw herself looking to ancient sources for a rhythmic sensibility that could yield new sources of creative energy.[68] In his essay on rhythm, Jeanneret introduces Duncan in terms that could have been used to describe Maurice Emmanuel, saying that it was by "seeking a point of support on Greek statuary," that she was able to "restore the sequence of *attitudes* [italics mine]." [69]

With this description, Jeanneret signals his affiliation with a theory of *gesture* formulated by Dalcroze's student, the composer and art critic Albert Cozanet (alias Jean D'Udine).[70] In *Art and Gesture* (1914), Cozanet describes how gesture communicates particular "attitudes" – each representing what the Ancient Greeks described as a distinct "movement of the soul."[71] Cozanet translates this notion into the parlance of modern energy science in claiming that every discretely observed action registers "a particular state of the nervous system which either accelerates or

[66]Christophe Corbier notes a continuity between Emmanuel's images of the so called "Cambered dances" with Charcot's iconography of hysteria. Christophe Corbier, « De Nietzsche à Maurice Emmanuel: danse et hellénisme », in *La littérature occidentale (1910-1950) et les mythes gréco-romains*, (Séminaire co-organisé à Paris X et Paris 13 par Véronique Gély et Anne Tomiche, *Nov.7, 2008), 21-22.*
[67] Hillel Schwartz, "Torque," 73.
[68]See also: F.M. McCarren, *Dancing Machines: Choreographies of the Age of Mechanical Reproduction (*Stanford: Stanford University Press, 2003), 12.
[69] Jeanneret, « Rhythm », 338.
[70] Cozanet dedicates the work to "his teachers" Dalcroze and Le Dantec. Jean D'Udine, *L'art et le geste*, (Paris: Alcan, 1910), v.
[71] Ibid., viii.

slows the heart."[72] Note Cozanet's emphasis here on psychological excitation or *dynamogeny*, which we encountered with reference to Charles Henry's studies of visual perception. Here, however, a new set of questions emerge which are particular to the perception of movement. In addressing these, Cozanet's theory of gesture draws from multiple scientific and philosophical traditions.

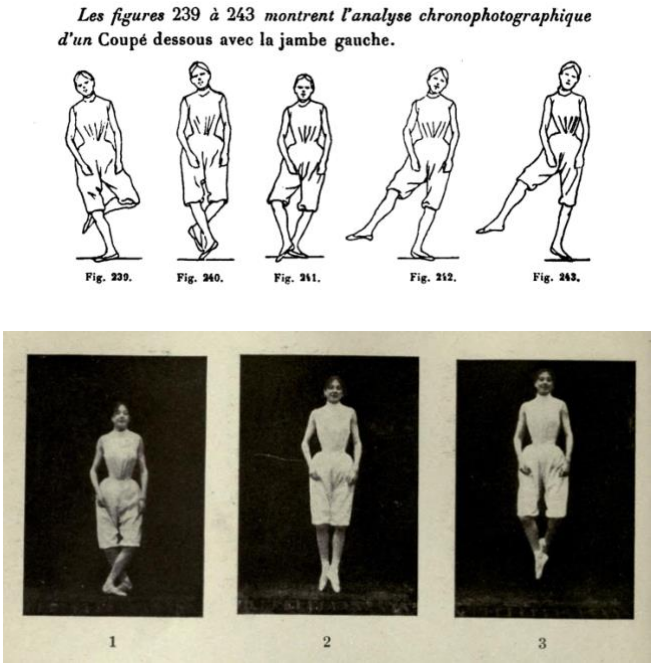


FIGURE 4.9 Choreographic analysis. Maurice Emmanuel, *La Danse Grecque Antique D'après Les Monuments Figurés* (Paris: Hachette, 1896), 137 (above); 76 (below).

Cozanet's theory of gesture derives its physiology from the biologist Felix Le Dantec – to whom, alongside Dalcroze, his book is dedicated. He claims that our cellular matter records movement in the "colloidal" structures of the body (midway between the cellular and anatomical).[73] This biological imprint is stored unconsciously within the body and can later be

[72] Ibid.
[73] Brain quotes Le Dantec as saying that life occurs "roughly a half-distance" between the atomic or chemical scale

reactivated by perception, memory, or even passed on to subsequent generations. One important consequence of Le Dantec's physiology is that one could imagine how a widespread return to Hellenic rhythm represented not just a technique to be relearned but also a kind of corporeal memory reactivated in the body of its modern practitioners. "Every artist" Cozanet writes, "is a transformer; every artistic creation is a transmutation."[74] Duncan's Hellenic dance thus promised more than a stylistic revival. The material (colloidal) tissues of her body preserved, and newly circulated, these ancient rhythmic codes.

If below the threshold of psychological perception, ratios, and rhythmic movements of all varieties are registered by the body's protoplasm, for the psyche these same movement sequences are perceived and stored (as memory) in the form of distinct gestures – again, each bearing their own emotional "attitudes."[75] Dalcroze experimented with the way in which the body could spontaneously call upon its physiological memory when prompted by a particular image or idea. To get a sense of what this entails, recall the photograph of a group of children suspended in mid-air (Fig. 4.4b). This image captures a Dalcrozian exercise in which students are prompted into flight at the instructor's verbal command. The students have been trained to respond to the word "hop" by clearing an interior pathway between a recalled psychological image of levity and its physiological actualization in time. Dalcroze apparently developed this technique in collaboration with the Geneva-based psychologist Edouard Claparède. In a branch of study described as a "psycho-technics," Clarapede argued that a "a central energy reservoir" could be

of colloidal protoplasm and the scale of the mechanical individual organ. Brain, *Pulse of Modernism*, 202.

[74] D'Udine, *L'art et le geste,* xiii. See also: Jean Labadie, « La transmutation de la matière et l'énergie », *EN* n°15, 1734-1740.

[75] The epigraph to L'Art et le geste reads: « Toute œuvre d'art est une série d'attitudes. Tout artiste créateur est un mime spécialisé. » D'Udine, *L'art et le geste*, n.p. A history of the term can be found in Kurt Danziger, *Naming the mind, How Psychology Found Its Language* (London: Sage, 1997) 134-157.

spontaneously drawn from through the appropriate "turning of taps."[76] Studying the activity of children, Claparède suggested that their embodiment of energy could be suddenly transformed as the result of "interest," "imagination," or when suddenly organized around the "clarity of an ideal."[77] Cozanet's theory of gesture absorbed these Dalcrozian experiments, and provided a practical explanation for how the body could rediscover lost pathways between body and mind.

More than this, however, the notion of gesture also provided an aesthetic framework for understanding the expressive or communicative functions of rhythm. For Cozanet and other contributors to *L'Esprit nouveau*, a particularly important resource on these questions was Paul Souriau's *Aesthetics of Movement* (1889).[78] In this work, Souriau theorizes the very conditions under which movement becomes psychologically expressive. Souriau argues that the perception of movement relies upon it becoming an *objective* and *localizable* sensation. "In order to perceive the movement of objects," he writes, "we must be able to realize the place they occupy in space, at each moment of their translation. Any objective and localizable sensation will thus be able to serve us to perceive the movement, with all the more exactitude when this localization is precise."[79] In a central chapter entitled "On the Aesthetics of Force," Souriau develops a clearer picture of what such localization entails. He claims that space is not an a priori category of the mind (as suggested by Kant) but rather a universal condition of existing as a body in relation to gravitational force. By extension, our ability to experience the world aesthetically relies upon a similarly embodied sympathy for any "objective and localizable movements" which express this

[76] Edouard Claparède, *Experimental Pedagogy and the Psychology of the Child*, (London: Edward Arnold, 1911) 278. Through this defense of the creative subconscious, Claparède provides Dalcroze with a theory that validates the spontaneous and instinctual body that responds, like a medium, to the musical sounds and spaces that it occupies.
[77] Édouard Claparède, « L'Association des Idées », *Revue de Métaphysique et de Morale* 11 no. 4 (1903): 7-8.
[78]On this relevance, see Judi Loach, "Architecture, Science and Purity," 207-44. Loach cites JL Cohen when describing how Le Corbusier, while a student in Chaux, is said to have read Souriau's La Beauty Rationelle and *L'esthetique du* movement. See JL Cohen, "Introduction" in *Toward an Architecture*: *Texts & Documents* (Los Angeles, Calif.: Getty Research Institute, 2007), 14.
[79]Paul Souriau, *L'esthétique Du Mouvement* (Paris: F. Alcan, 1889), 221.

basic gravitational condition: "[We reserve] all our sympathy for the forces which resist gravity, which seem to fight against the fatality of the fall."[80] This is an important variation on the traditional aesthetics of force cited earlier with reference to Jouffroy. For here, it is not simply an expression of willpower that forms the basis of aesthetic communicability (i.e. sympathy), but rather how the individual artist negotiates and intervenes within existing forces of gravitation. While individual willfulness has been complicated psychologically, it has also been radically situated within a gravitational body.

The gravitational dimensions of Souriau's thinking were foundational to the aesthetics of rhythm later developed by Cozanet's *Arte et Geste*. Like Souriau, Cozanet defines gravity as the basic condition upon which our experience of art is predicated. "The natural phenomenon, from where we derive, in the final analysis, all forms of art is gravity, as we shall see. From gravity the most diverse works obey the laws of universal gravitation, of which they are the emotive expression."[81] When describing the pleasures derived from the motor sense, these « *jouissance motrices* » refer not only to the cinematics ordinarily associated with dynamic movement (such as a pictorial or sonoric arabesques) but also to an embodied responsiveness to experiences which Cozanet classifies as "static."[82] In response to works of architecture, for instance, our motor responsiveness is activated by solid masses whose static quality defy gravitational odds. "The optical beauty of monumental forms must be a consequence of the balance of the heavy masses . . . Only a perfectly logical construction is found a posteriori to please our visual motor sense."[83] Gravity is similarly described by Cozanet as the condition out of which our sensitivity

[80] Paul Souriau, *L'esthétique Du Mouvement,* 204.
[81] D'Udine, *L'art et le geste,* 108.
[82] Ibid.
[83] « La beauté optique des formes monumentales doit être une conséquence de l'équilibre des masses pesantes. . . Seulement toute construction parfaitement logique se trouve a posteriori plaire à notre sense moteur visual. » Ibid., 120; Compare to Souriau: "But when I find myself in the presence of the real building, other notions, namely dynamic ideas, enter into my representation. These stones, I do not represent them as geometrical solids, but as hard

to rhythm is made possible.[84] From the mechanics of the clock-tower to the regularity of moving limbs (an example that had been popularized by Wundt), he describes gravity as the universal force without which any sense of temporal duration would be impossible.[85]

These temporal aspects of visual perception presented a particular problem. Bergson, for instance, had been famously critical of a growing aesthetic capacity to portion off specific moments in time. Such segmentations of time's *durée,* he argued, relied upon a regressively geometric and two-dimensional idealization of an otherwise complex lived experience. And yet others, including both Souriau and Cozanet, saw this capacity for segmentation as foundational to how movement becomes meaningful psychologically. What Nietzsche had described as a science of "temporal atomism" – again, the possibility of breaking experience into units of time – was given enormous traction as the photographic medium gained the capacity to record split-second movements. The gesture studies noted earlier with respect to the medium are one manifestation of this newfound capacity, as was the elaboration of Marey's famed chrono-photographic techniques for presenting a cohesive movement through the re-combination of consecutive snapshots. And whereas for Bergson, Marey's techniques promoted an ancient lie – "they are perfect examples of what reality is not "he writes in his *Creative Evolution* (1907) - with respect to the experience of temporality, others treated these momentary idealizations as the

and heavy masses, piled up the ones on the others; the entablature weighs on the column, which makes an effort to support it; the vault weighs on the walls, which lean in their turn on the buttresses, to resist this push. All these pressures and counter-pressures, the architect had to calculate them; the spectator judges them; and according to whether the combination seems stable or unstable, he receives an impression of security or anxiety. What do we admire in a gothic church? Is it only the purity of the lines, the grace of the curves? No, it is also this victory won on the gravity." Paul Souriau, *L'esthétique Du Mouvement,* 204.

[84] Cozanet shares an anecdote of an overnight visit to a Renaissance cathedral, and how the regular intervals of the mechanical clock tower led him to the realization of gravity's constancy as a condition for any sense of duration. "Weight and duration - and who says duration says rhythm necessarily - are inseparable and interdependent of each other." " La pesanteur qui nous donne à la fois le sentiment de la durée et le moyen de diviser cette durée. » D'Udine, *L'art et le geste*. 110.

[85] Souriau, *L'esthétique Du Mouvement,* 22.

very condition for a psychological aesthetics.[86] Again, I draw out this trajectory from Souriau to Cozanet to underscore how the expressive function of art is newly conceived as a motor-sensibility that transforms the spatial conditions of gravity into localizable moments of temporal duration.

From this vantage, the aesthetics of rhythm afford a new proximity between architecture and rhythmic gymnastics. The Boissonnas photographs, I suggest, read alongside their accompanying captions, serve as an index of this proximity. Note, for example, that issue n° 16 of the journal features an extensive collection of photographs taken from Boissonnas' 1907 study of the Parthenon. The accompanying essay, « Architecture – Pure Creation de l'Esprit », attributed to both Le Corbusier and Ozenfant under the pseudonym Le Corbusier-Saugnier, recapitulates many of the same tenets used to describe Dalcrozian Rhythm. Above all, our responsiveness to these works is attributed to a form of sympathy communicated in the language of mechanical force.[87] The selected photographs present the verticality of classical architecture, not as a brute assertion (elsewhere in the journal, Le Corbusier attacks this tendency in German architecture) but, rather, as a subtle negotiation of gravity achieved on a horizontal plain.[88] Using a variety of visual codes, the Boissonnas photographs suggest architecture's expressive capacity as a function of gravitational force in time. For instance, some of Boissonnas' photographs

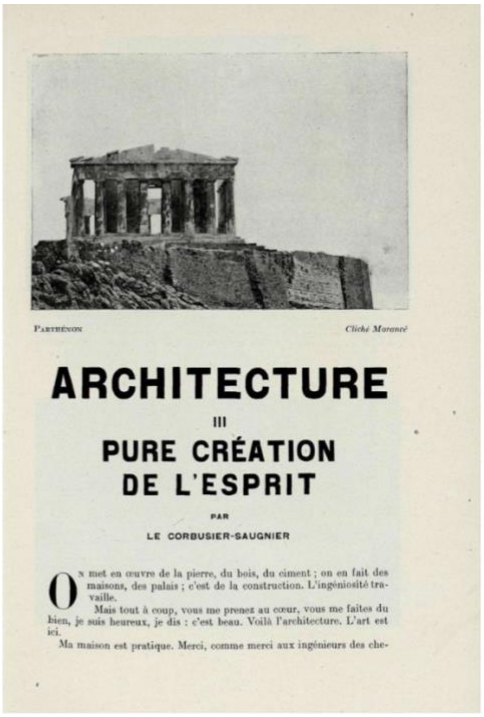
[86] Henri Bergson, *Creative Evolution,* 263.

[87] " Nous introns dans l'implacable de la mécanique," the text asserts. This statement refers to a broader conception of how artistic agency is communicated. Architecture is understood to be a unified "plastic system," an "organizational axes" connected by "precise rapports." This objective unity is derived from a subjective "unité motrice," from which it achieves "an "attitude fundamental, un charactère," which is communicated, "not by symbols," but by the vibrational "resonance "of "categorical sensations." These notions of communicative sympathy - again, shown by Thibault to be familiar to a tradition of thinking about architecture through unconditional signs - reiterate the tenets of a Classicism born from mechanical aesthetics. Le Corbusier-Saugnier, *«* Architecture - Pure Creation of the Spirit », *EN* n°16, 1903-1920.

[88]A one-page diatribe upbraids the German propensity as a "mysticism" and a "poison." « Dans une Maison on vit par etage, horizontalement et non verticalement. Les Palais allemande sort des cages d'ascenseurs. » Le Corbusier-Saugnier, « Curiosité? Non : Anomalie! », *EN* n° 9, 1019. Relevant here is Hillel Schwartz's description of a "loving accommodation of the force of gravity" which was central to the sincerity of early 20th-century kinaesthetic practices. Schwartz, "Torque," 73.

document at a relatively microscopic scale. Perched atop a 40-foot ladder (Fig. 4.10), Boissonnas was able to provide what, in 1907, was still an unprecedented level of access to how ancient builders negotiated the distribution of weight between horizontal and vertical planes. A "fraction of a millimetre intervenes" reads the caption under a high contrast detail of the cornice (Fig. 4.13b).[89] In another class of images, Boissonnas dramatizes the architectural negotiation of gravity through the effects of light on mass. In some, the monumentality of architecture is presented in the form of a triumphant ascension. The Parthenon appears « liées au ciel, come liées au sol, naturellement », writes Le Corbusier Saugnier.[90] In others, the effects of light on solid massing lend to the architecture a durational quality that is more accessible at a human scale. In light puncturing sideways through a vertical colonnade, the three dimensionality of the space is made "localizable" within a fourth (temporal) dimension – an effect comparable to Appia's *Espaces rythmiques* drawings (1909-10) documented in Boissonnas' studio (Fig. 4.12 - 13a). Similarly, when light on solid massing is used to present a long horizontal stretch of stairs, it is the stairs subtle declension, registered temporally, which provoke an awareness of aesthetic agency – described in the captions, as a "unity of motor intentions" (Fig. 4.13c). [91] Such declensions are a helpful reminder that in addition to leaping bodies, visual cadences are also capable of expressing what Hillel Schwartz aptly describes as a kinaesthetic demanding the "loving accommodation of the force of gravity."[92]

[89] Le Corbuser-Saugnier, « Architecture – Pure Creation de l'Esprit », *EN* n° 16, 1915.
[90]Ibid., n.p.
[91]The term used is: « une unité d'intention motrice ». Ibid., n.p.
[92] Schwartz, "Torque," 73.



Parthénon Cliché Morancé

ARCHITECTURE

III

PURE CRÉATION DE L'ESPRIT

PAR

LE CORBUSIER-SAUGNIER

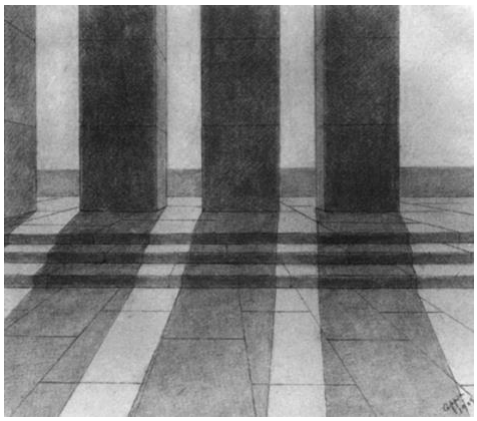
On met en œuvre de la pierre, du bois, du ciment ; on en fait des maisons, des palais ; c'est de la construction. L'ingéniosité travaille.

Mais tout à coup, vous me prenez au cœur, vous me faites du bien, je suis heureux, je dis : c'est beau. Voilà l'architecture. L'art est ici.

Ma maison est pratique. Merci, comme merci aux ingénieurs des che-

FIGURE 4.10 (left). Frédéric Boissonnas seen photographing the Parthenon, 1907.

FIGURE 4.11. (right). Cover page of Le Corbusier-Saugnier, *«* Architecture - pure création de l'esprit », *EN* n°16, 1903.



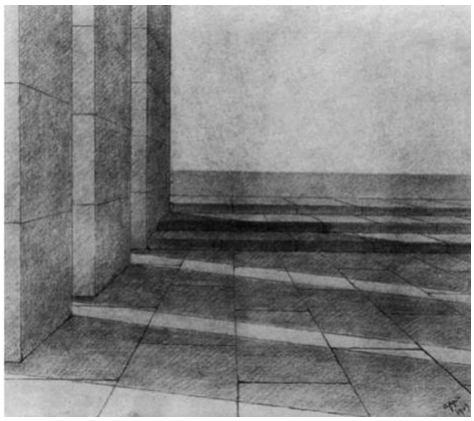
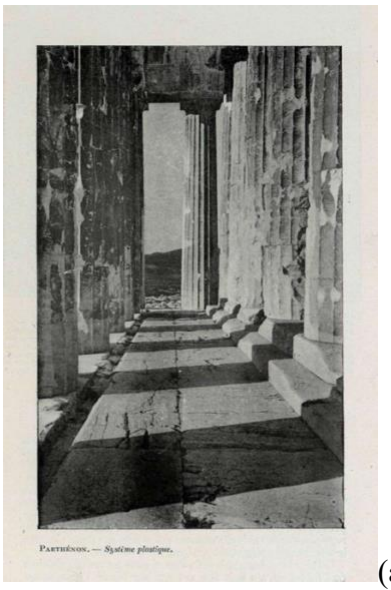
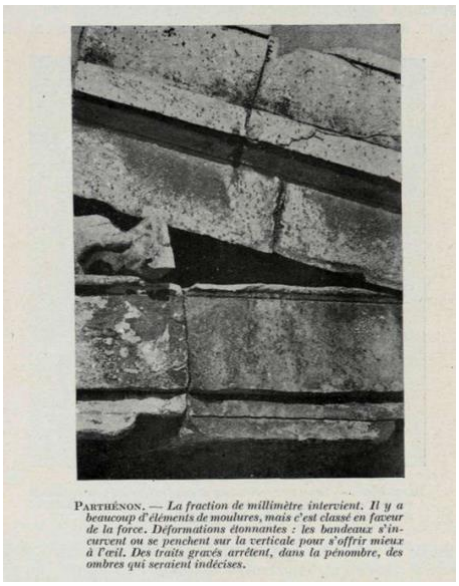


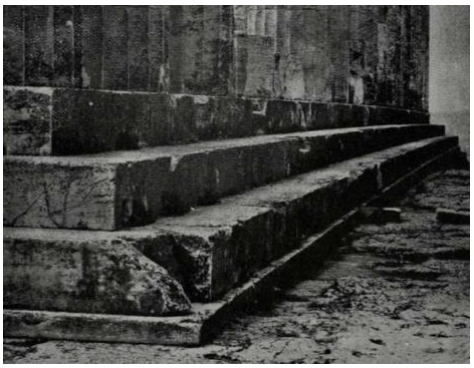
FIGURE 4.12 Adolphe Appia, *Espaces rythmiques* (1909).
Photographed by Atelier Boissonnas. Bibliothèque de Genève



(a).



(b)



(c)

FIGURE 4.13. Frédéric Boissonnas, Photographs originally published in Frédéric Boissonnas and Daniel Bohd-Bovy, *En Grèce par monts et par vaux,* (Geneve: Fréd. Boissonnas & cie, 1910). Reproduced in Le Corbusier-Saugnier, *«* Architecture - Pure Creation of the Spirit », *EN* n°16, 1908 (a) 1915 (b) 1910 (c).

To be clear, I am not suggesting that there was a perfect consistency between the aesthetics of movement developed by Souriau, Cozanet, and the contributors to *L'Esprit nouveau*. At various points in their argument, Le Corbusier and Ozenfant seem perfectly content to think of architecture through the kind of timeless visual geometries we encountered previously with reference to Seurat. More exactly, my suggestion here is that we think of the Boissonnas photograph's as representing architecture and dance at a moment in which the expressive character of art was conceived within a matrix of gravitational force captured within time. The

photographs are informed, and indeed contribute, to the development of this aesthetic model. They are born from collaborations with Magnin's mediumistic study, and with Souriau pursue the same generational fascination with the perception of movement. With Cozanet, Boissonnas of course shares a closer proximity – since both acted in their own capacity as close witnesses and interpreters of Dalcrozian eurythmics. Again, my interest is to see a common orientation amongst these various images and concepts: what I introduced at the outset as an ascensional logic recurring within the metaphorics of rhythm.

Conclusion

Finally, what do such ascensional figures tell us about the links between the aesthetics of rhythm and energy hygiene more broadly? To answer this question, let us return to where we began, with the figure of Max Dohrn and his address to the students at Hellerau. When describing the promises of Dalcrozian rhythm, Dohrn turns to the question of production. He says that it is "the border between the conscious and the unconscious where the productive in man takes shape."[93] This formulation offers a compellingly simple way of revisiting several of the key issues developed within this chapter. While briefly summarizing each, I will conclude by asking: What is the nature of a productive principle that is situated "in between" conscious and unconscious dimensions of human experience?

The history of mediumistic study suggests a conditional acceptance of the instinctual, involuntary body. The body's unthinking "suggestible" nature is re-habituated in its motor habits. Its unruly and excessive energies, newly symptomatized as the tics and tremors of

[93] Dohrn, "Die Aufgabe der Bildungsanstalt Jaques-Dalcroze," 8.

nervous pathologies, are brought under the control of a reformist "workculture" regime.[94] Recall here the promise of Jeanneret's advertisement to produce "a better organized individual, better equipped for modern life."[95] Just as the medium Madeleine G. is newly legitimated by Magnin's medical authority, we might say that Dalcroze's students are given permission to reclaim their bodies' spontaneous and unthinking responsiveness to the surrounding environment. More than that, they are given the tools to unify their bodies according to the singular and expressive gestures which appear, however fleetingly, to the imagination. Recall how for Clarapède, the sudden organization of energy can follow as much from an attitude or ideal as from a particular image. Guided by the tenets of Dalcrozian pedagogy, we might say that the aesthetics of rhythm represent the prospect of uniting the unconscious body and raising it to new heights.

But what is being described in this principle of ascension? Here Mikkel Borch-Jacobson offers a helpful distinction.[96] In describing the medicalization of the medium, Borch-Jabobson distinguishes between two therapeutic regimes. In the first, represented by Charcot and Janet, the "telos of psychoanalysis resides in attempting to put an end to the trance."[97] This "allopathic" logic is taken up within a variety of therapeutic models, from Freudian talk-therapy to Janet's ladder of nervous tension. The underlying logic is to rise above the suggestibilities of the instinctual body. By contrast, the second model, termed "homeopathic," involves "strategies [that] do not take the form of a war against the trance, but attempt to achieve an altered relation to it."[98] In Borch-Jacobson's description, the instinctual body must be "taken in charge, raised up, cultivated" by the so-called therapy.[99] From this perspective, I suggest the aspirations of

[94] Recall that the entryway to the Hellerau *Festpielhaus* (seen in Fig. 4.2) contains a yin and yang symbol, suggesting the centrality of this principle.
[95] Albert Jeanneret, « La Rythmique », *EN* n° 2, 183.
[96] This distinction appears in Sonu Shamdasani, "Introduction," *From India to Planet Mars,* xxiii.
[97] Ibid.
[98] Ibid.
[99] Ibid.

Dalcrozian rhythm index the latter effort to accommodate and reform the body's unconscious responsiveness. Rhythm is a technique used to contain its excessive and unruly force.[100]

We encountered a secondary feature of this ascensional model in efforts to "spiritualize" the body according to an evolutionary schema. As noted previously with reference to Basch, Lalo, and Allendy, the "raising" of the instinctual body is repeatedly imagined in the form of an evolutionary passage between primal and advanced phases of human development. Within aesthetics, a common point of reference for this imaginary was Fechner's 1862 *Vorschule for Aesthetics,* which characterized its program as "an aesthetics from below."[101] The implied trajectory of this science was to study the human as an extension between its lower and higher functions and to use the resources of art to define the operational structures that pass between them. I have suggested that Dalcrozian psycho-technics were accompanied by similar ambitions. First, insofar as it saw itself drawing from earlier, archaic forms of embodiment to correct for the arrythmias of advanced civilization. And second, in Cozanet's efforts to bridge between physiological and psychological registers. In both senses, rhythm was imagined as a passage between different evolutionary phases of the human organism.

When read through the filter of Purism, this evolutionary motif assumes a moralistic tone. Captioning the Boissonnas' photographs at the Parthenon, the editors celebrate the erasure of crass contingency as an evolutionary passage. They equate Doric "austerity" with Doric "morality." One caption reads: "The courage of square moldings, austerity, a lofty spirit." A later caption suggests a similar principle: "We speak of the 'Doric' when the man, by a complete

[100] Hillel Schwartz suggests that such techniques of bodily unification represent a strategy that develops in tandem with (and not only compensatory for) the experience of bodily fragmentation brought upon by modern technological experience. See Robin Veder's helpful discussion on whether the development of therapeutic body cultures can be understood as "modern or antimodern." Robin Veder, *The Living Line : Modern Art and the Economy of Energy* (New Hampshire: Dartmouth College Press, 2015), 11-13.
[101]On questions of verticality in dynamic psychiatry, see Ellenberger *Discovery of the Unconscious,* 289-312.

sacrifice of the accident, has reached the superior regions of the spirit: austerity."[102] These metaphors assume a spectrum which extends from the accidental to the categorical, or from fleeting individual sensations to a unified plastic system achieved in the work. This description suggests a homology between artist-architect and building: a unity of the human motor system with the unity of the plastic work. Like the constructivism of Seurat, we encounter in this disciplinary process an aesthetic undertaking that doubles as a morally hygienic procedure.[103] Classical architecture is used to describe a modern psychophysiological subject, raising itself up through its work, and attaining the "superior regions of the spirit."[104]

But finally, Boissonnas' leaping bodies represent more than just highly functional energy economies; they are also, in their own way, figures of *excess*. They celebrate a moment in which daily regimens coalesce into a kind of joyful exuberance. Aesthetically, what are the consequences of this excess? In Souriau's language, the experience of "grace" describes our encounter with forms of energetic expenditure that comes at minimal cost. Grace, he writes, is an "expression of physical and moral ease in movement."[105] With this definition, Souriau distinguished himself from the principle of mechanical efficiency ("the least expenditure of force") that was central to Herbert Spencer's "Essay on Grace."[106] Providing a list of movements that are too mechanically automated – ice-skaters so efficient they lose their individual swagger – Souriau's claim is that, above all, we are moved aesthetically by "a law of activity:" we like to see "our energy, our initiative, put to the proof."[107] He writes: "Movements, then, really have

[102] Le Corbuser-Saugnier, *«* Architecture - Pure Creation of the Spirit », *EN* n°16, 1908
[103] This is, I suggest, a concise example of what Sloterdik describes as the "vertical acrobatics" that underlie modernist auto-technics. Sloterdijk, *You Must Change Your Life*, 64.
[104] Ibid., n.p.
[105] Paul Souriau, *The Esthetics of Motion, with Special Reference to the Psychology of Grace, trans.* George H Browne (New Ulm, Minn: Turner Pub, 1917) 14.
[106]Ibid., 34.
[107]Ibid., 22.

grace only when we feel that their rhythm is taken up voluntarily, when we are free to throw it over whenever we like, and when there is ample field for individual whim and fancy."[108] Souriau's emphasis on activation here is an important reminder that the "moral" or "spiritual" dimensions of these various images are also a way of rethinking the composition of an individual subject. They offer a model for how the force of its will – a legacy of mid-19th-century philosophy – can be reconceptualized within a new pyschophysiological spectrum of voluntary and involuntarily activity. In Boissonnas' leaping bodies – what Michael Cowan has called a dominant topoi of the early 20th century – we encounter the ideal of a body that regains its unity at the very moment in which its energy comes at little expense.[109] My proposal is that we read the exuberance of these images as a function of the intensity by which a principle of involuntary mechanical efficiency is paired with a subjectivity that is precisely un-machined. As Souriau suggests, we hate nothing more than to encounter in one another "the appearance of machines."[110]

[108] Ibid., 22.

[109]Cowan cites the editor of *Kraft* und *Schönheit*, Gustave Möckel, whose writes in his 1911 article "Die Überwindung der Schwerkraft" ("The Overcoming of Gravity"): "What magnificent glimpses there are in every type of jump, when the body races upward from the ground like an arrow from the bowstring, in order to make its flight. . . The relevance of these ideas concerns not only our bodily existence but even more so our intellectual and spiritual life. . . Many a man is able to overcome difficult circumstances in life only because his powerful body and strong nerves have lent his spirit and soul those same wings that we attribute to angels and other supernatural beings n fantasy and in art." Cited in Michael J. Cowan, *Cult of the Will: Nervousness and German Modernity* (University Park, PA.: Pennsylvania State University Press, 2008), 135-36.

[110] Ibid., 22.

CHAPTER FIVE: LYRICISM

The authors of *L'Esprit nouveau* contribute to a rethinking of modern lyricism. Transforming a romantic convention, they shift its emphasis from the lyric (singing) poet to the more technical manufacture of an external and depersonalized poem. In what follows, my interest is to pursue the techno-scientific imaginaries that enabled this shift in emphasis, and to understand their consequences from the perspective of energy hygiene.

Ideas about lyricism are numerous in *L'Esprit nouveau*. And while they are foregrounded in articles pursuing the function of modern literature and poetry, they are also wedged into polemics fought within the journal's marginalia. In book reviews and curated selections from the popular press, under headings such as *Coupures de journaux, Divers, Ce mois passé, Ephemerides*, the editors project an image of a journal which not only broadcasts its core aesthetic principles but also locates itself within a mass media culture in which it both sees and hears its own ideas resonating back to itself. In this resonant discursive landscape. In this milieu of wireless transmission, I suggest we find a first and important keystone for understanding the journal's remaking of modern lyricism under terms borrowed from the sciences.[1]

But first, at the outset of this dissertation, I indicated that the journal's historical uniqueness lay in its capacity to oscillate between the cohesion of a manifesto and the experimental heterogeneity of its Dadaist contemporaries. Where questions of lyricism arise, such oscillations are acute and suggest particularly contentious years for literature and poetry.

[1] I interpret resonance here as a mechanical variation on the notion of sympathy. As we shall see, it is used to describe how proximate electro-magnetic frequencies effect a common increase in amplitude. Transmission here is used to describe how these frequencies are transferred or communicated.

Whereas painting "after Cubism" or rhythm in the model of Dalcroze could rely upon somewhat established footholds in recent aesthetic debates, the journal's publication coincided with an early 1920s moment that was dramatically fissured in its formation of literary affiliations. The creation of a modern literary canon, the legacies of literary Cubism and Guillaume Apollinaire (who died in 1918), newly stated claims on the banner of Surrealism: these were but a few of the fault lines running throughout the pages of the journal.


CE MOIS PASSÉ...

M. Picabia dit dans *Comœdia*, mêlées à des sophismes amusants, des choses très justes :

FIGURE 5. 1 Header for « Ce mois passé », *EN* n°17. n.p.

As a point of entry onto this uncertain terrain, I begin with a moment cut from the journal's marginalia. In a section titled « *Ce mois passé* » in issue n°17, the editors Ozenfant and Le Corbusier respond to an essay written by artist-poet Francis Picabia for the literary arts newspaper *Comoedia*. The editors begin by asserting their like-mindedness with Picabia, a humourist-provocateur and editor in his own right, on the grounds of their shared antipathy towards the arrogance of a younger generation and its (presumably Dadaist) avant-garde. In their citation, the editors take liberties with Picabia's text, arguably saying more about their desired affinity than his stated one. They quote him as follows: "The great chic for young people is to show their genius by declaring that all those who came before them are idiots: Beethoven? a shaver! Rembrandt? he is good at making pork-butchery! . . . *L' Esprit Nouveau* magazine. . .

less audacious than *Je sais tout* . . . is walking on all fours."[2] Picabia's comparison between the popular science magazine *Je sais tout* and *L'Esprit nouveau* becomes an opportunity here for the editors to underscore the role of their publication within public life.[3] Where *Je sais tout* responds to a popular demand for "monstrosities" and "singularities," *L'Esprit nouveau* wants only to present a "collection of good products for the current brain."[4] Providing this service to human improvement, the editors see themselves occupying a distinctly hygienic role within the mass media landscape.[5]

Having established with Picabia a common opposition against a popular taste for novelty, the editors proceed to quote his article at length:

> Those who possess a true creative faculty can only express themselves through themselves. The craft they have acquired is only a means to exteriorize themselves in a more complete way to others. They do not need to look for a new personality, a new process, a new representation: the novelty is in them, because there is neither new art, nor new men, but simply men with the gift of feeling, then of expressing what others will never suspect in the ambient life. These men with antennae worry us and attract us, it is among them that we can discover genius.[6]

Packed into this citation are what I see as being the central problems raised by lyricism in *L'Esprit nouveau*. They include: (1) the *directness* of lyric communication, (2) its processes of *exteriorization*, and (3) its imagined *transmission*. First, whereas for the plastic arts, questions of artistic subjectivity are firmly embedded in material techniques, here the notion of a lyric subject raises at least the *possibility* of an idiosyncratic subjectivity – i.e., a motivated singing voice – that communicates *directly* to another person by way of literary form. As we shall see, many of

[2] This citation collects from an extensive text, and arguably says more about the desired affinity than the stated one. [Editor's Note] « Ce Mois Passé », *EN* n°17, n.p.
[3]Incidentally, *Je sais tout* would soon play a critical role in making wireless radio available as a mass medium.
[4] [Editor's Note] « Ce Mois Passé », *EN* n°17, n.p.
[5]"Perfection and monstrosity do not align well," the editors write. Ibid.
[6]Ibid.

the journal's collaborators vigorously oppose such conceptions of the lyric and maintain that poetry constructs no differently with language and imagery than a painter does with color and form. Second, Picabia's description of craft as a "means of exteriorization" raises a question about how interior processes are manifest outside of the subject. Several of the contributors want to study these processes and understand their implications, both artistically and in promoting psychological health. Lastly, Picabia's text concludes with a faintly recurring image of an artist whose "antennae" allow them to express "what others will never suspect in the ambient life."[7] My interest, as briefly alluded to above, will be to track an aesthetic sensibility modelled here on wireless communication: lyricism as a transmission of electro-magnetic waves.

In what follows, I will take up these three problems raised by Picabia – again, regarding the relative *directness* of lyric communication, its processes of *exteriorization*, and its imagined *transmission* – by looking at how the mechanical sciences inform a notion of lyric manufacture. The chapter proceeds in three sections. In the first section, I will introduce the importance of mechanical metaphors within the journal and suggest how lyricism demanded a different set of models than those encountered with respect to the visual arts. In the second section, I will then revisit the 19th-century science of *technaesthetics*, suggesting that it prefigures the journal's conception of poetic technique as directly affecting the psychology of its reader. I then suggest how this technaesthetic tradition divides between two visions: one seeking to stabilize the subject through a static intuition, the other agitating it into a field of dynamic and polymorphous associations. I will highlight the legacy of Leonardo da Vinci as a means of illustrating this distinction. In the final section I turn to the work of Paul Dermée, offering a more in-depth

[7]Ibid.

analysis of how he connects the aims of lyricism to the field of experimental psychology and to larger societal questions around energy hygiene.

A Literary Machine

Considerations of lyricism in *L'Esprit nouveau* borrow from a tradition that imagines literary technique through the prism of a machine. From the 19th to the early 20th century, the nature of this machine is continuously reformulated in dialogue with the popular science of the day.[8] In previous chapters, we saw how the motor, a machine for converting energy, became a recurring way of characterizing art as a system of *forces* acting sympathetically upon and between subjects. In this chapter, we will explore how figures of electro-magnetic resonance become relevant as signifiers for aesthetic experience.

Recall that Ozenfant and Jeanneret, beginning their collaboration towards the end of the war, used the machinic metaphor to describe a principle of organization with reliable constants. Whether poet or architect, the artist engineers the work by directing the immutable laws governing human sensibility. Whereas previous aesthetic models might have positioned a poem or artwork before a connoisseurial faculty of taste, here the machinic metaphor introduces both the clarity and repeatability of the work's effects upon the embodied psychology of a future viewer, reader, or spectator. In *Après le Cubisme*, Le Corbusier and Ozenfant write: "Using the raw elements, we must construct works that make the intellect respond. It is this response that matters."[9] Here the intellect is foregrounded, but they also speak of a machine that directs the

[8] Linda Dalrymple Henderson, *The Fourth Dimension and Non-Euclidean Geometry in Modern Art* (London, England: MIT Press, 2013), 15-26.

[9] They suggest that while Cubism succeeded in loosening the bonds tying art to narrative representation, it also presented the risks of an art conceived as ornamentation - a mere gastronomy for the senses. Superior to this model,

heart, the mind, or the person at large. Ozenfant notes this variability in his journals, recalling how his own conception of an artwork as a "machine for movement" (i.e., feeling) formed the basis for Le Corbusier's definition of the house as a "machine for living," while both came in response to Paul Valéry's notion of the book as a "machine for reading."[10] With the machinic metaphor, this conceptual slippage between reading, thinking, living, and feeling is ultimately tied to larger questions about how the artist's expert knowledge intervenes within the functional limits of its intended subjects. By a general orientation towards the "spirit," the subtle variations from one discipline to the next could be glided over, since all aesthetic forms could be used to engineer the well-being of both the individual and of society.

In the writing of *Après le Cubisme*, however, there persists some tension between the presumedly idiosyncratic character of poetry and the machinic function of the plastic arts. Le Corbusier and Ozenfant write: "Poems sing of the individual sensibility, but laws are forces that invigorate us, develop us, lift us up, and give us a new amplitude."[11] Notice here the devaluation of the lyric (i.e., singing) subject as the source and measure of artistic expression. Presenting an alternative to this emphasis on the individual, Ozenfant and Jeanneret imagine an externalized object, the electro-magnetic resonator, a producer of wave forms legible to the sensibilities of others. They write that the senses "behave like batteries of resonators, each of which is attuned to circumscribed waves, and their number increases to the extent that discoverers bring new views to bear on matter."[12] To some extent, this figure of resonance restates the principle of aesthetic

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they argue, is an art that uses scientific research, *organizing* sensation to arrive at more advanced purpose. A. Ozenfant and C. E. Jeanneret, *Après le cubisme* (Paris, Altamira, 1918).

[10]"Paulhan was in prose, like Eluard in poetry, like us in art, an engineer thinking that what one writes, paints, sculpts, builds, must be prepared with the care and long patience of the engineers composing a machine. I had baptized the work of art a "Machine to move", a slogan that Le Corbusier transformed for architecture into "Machine to live" and Paul Valéry named the book "Machine to read." A. Ozenfant, *Memoires*, 109.

[11] They continue: "The sources of nature are so much more abundant, fertile, unlimited, than the fanciful universe dear to romantics and the weak, built to their human measure." Ozenfant and Jeanneret, *Après le cubism,* 23.

[12] Ibid.

communicability previously encountered within the conventions of aesthetic sympathy. Note here, however, an added stress on how aesthetic consensus yields an *accumulation* of electro-magnetic forces: the artist as resonator grows in amplitude with the discovery of each newly sympathetic wave formation. The authors offer an example of this accumulation when suggesting the modern viewer has become attuned to a spectrum of colour not yet available to the contemporaries of Homer. "This seems to prove," Le Corbusier and Ozenfant conclude, "that our senses are subject to perfection, which is to say that they can become more supple and, consequently, that beauty's domain is expanding."[13]

Beyond this emphasis on accumulation, the image of electro-magnetic resonance also adds a temporal dimension to the theorization of the aesthetic. As Linda Dalrymple Henderson has shown, the prevalence of telegraph technology enabled a new conception of the artist which not only *registered* (as with the photograph or x-ray) the invisible vibratory dimensions of reality but could now also *transmit* these vibratory waves like the wireless telegraphs sent from the top of the Eiffel Tower. This adds a subtle but important variation to the motoric paradigm we have encountered in previous chapters: whereas a motoric principle allowed one to imagine aesthetic communication occurring as the spontaneous conversion of invisible forces available to us via sense perception, with electro-magnetic transmission it is now easier to imagine, and thus to theorize, how such conversions happen over time.[14] Because of this nuance, it is particularly the arts of succession – film, theatre, literature and poetry – where transmission proliferates as an aesthetic model.

[13]Recall that we encountered a similarly expansionist principle when, in response to Picabia, the editors describe the journal as providing a "collection of good products" leading to the "perfection" of the current brain. [Editorial Note] « Ce Mois Passé », *EN* n°17, n.p.
[14]See David Travis' discussion of "simultaneity" as a concept derived from the work of Michel Eugene Chevreul. David Travis, "In and of the Eiffel Tower," *Art Institute of Chicago Museum Studies* 13, 1 (1987): 12-15.

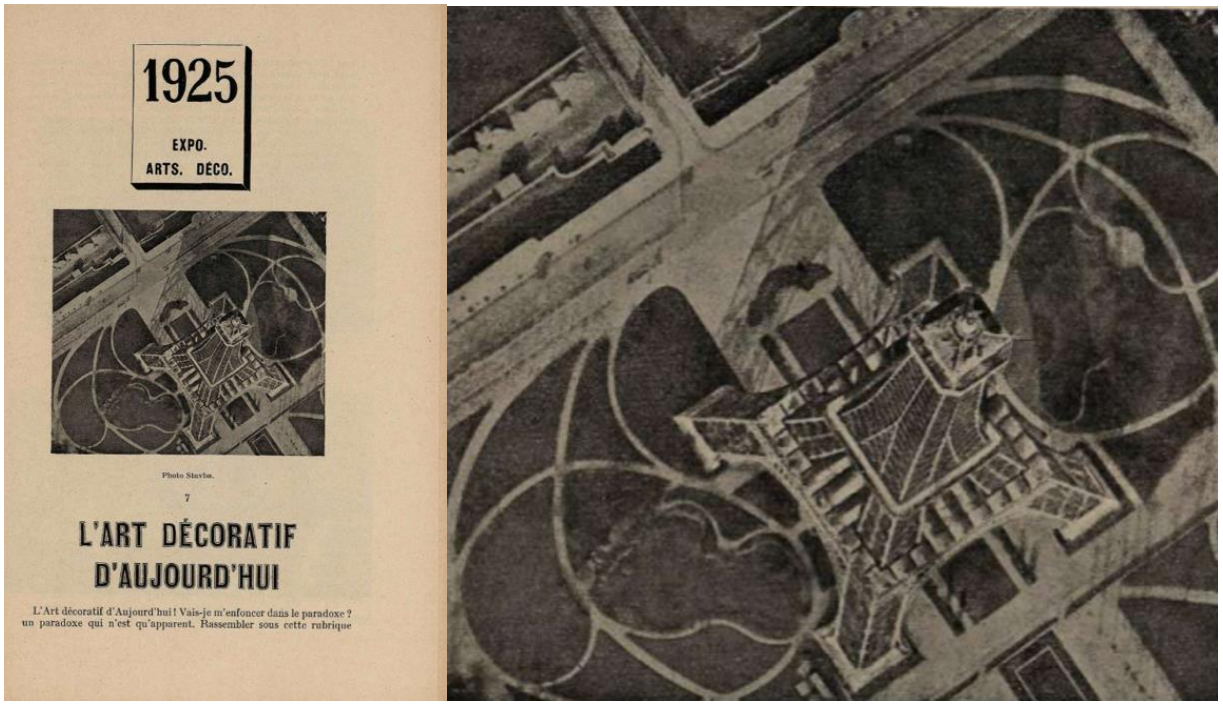

FIGURE 5. 2 Le Corbusier, « L'art décorative d'aujourd'hui », *EN* n°24, n.p.
Photograph attributed to the Czech revue *Stavba.*

Let us now consider three images of the Eiffel Tower as way of further introducing the journal's recurrent fascination with wireless communication. (1) The only direct photograph of the tower appears in issue n°24, as the visual epigraph to Le Corbusier's « *L'art décoratif d'aujourd'hui* » (Fig. 5. 2). In this aerial photograph attributed to the Czech review *Stavba*, the tower's iron structure is given a relatively diminutive presence. Whereas later in his career Le Corbusier will note the tower's vertical presence within Parisian cityscape as a "symbol on the horizon," here the view from above accentuates the tower's anchoring presence for the rippling walkways of the *Champs de Mars*.[15] This vantage does not suggest the overpowering effects of

[15] See by comparison the iconic images of Germaine Krull's *Métal* series collected in Travis, "In and of the Eiffel Tower," 8. A discussion of the image appears in von Moos, ed. *L'Esprit nouveau : Le Corbusier et l'industrie 1920-1925,* 199.

architecture on an individual visitor, but rather an expansive ring of urban networks, at the centre of which the tower is squarely planted. Accentuated here is the tower's functional capacity as a vehicle of lateral transmissions.

(2) A similar emphasis on transmission appears in performance stills from Jean Cocteau's farcical ballet « *les Mariés de la tour Eiffel* », published in issue n°10. Amongst the selected images, we see Cocteau positioned before a large phonograph representing one of the two telegraph dispatchers that surrealistically materialize at a wedding luncheon on one of the tower's platforms (Fig. 5. 3). In the cited libretto, two dispatchers drily observe the wedding party as it assembles for a photograph. Representatives of the time-based technologies changing modern life, they ridicule photography as an outmoded convention:

PHONO 2:

Don't you think it's a bit...

PHONO 1:

A bit of a cake...

PHONO 2:

A bit of a bouquet...

PHONO 2:

A little Mona Lisa...

PHONO 2:

A little masterpiece.[16]

[16] Jean Cocteau, « Les Mariés de la tour Eiffel », *EN* n°10, 1116-17

In a later section of this chapter, we shall see how such disparagements of the masterpiece, and of the *Mona Lisa* in particular, were a common motif within the avant-garde. Here, however, I simply want to underscore how the tower was used to dramatize the appearance of time-based technologies and, in so doing, to reckon with a new speed and variability made possible in aesthetic communication.[17]

(3) Finally, one of the Eiffel Tower's most cited associations with wireless communication appears in Guillaume Apollinaire's ground-breaking collection of ideographic poetry, *Calligrammes* (1918).[18] The collection is cited numerous times in the journal and is featured in a full-length issue dedicated to the legacy of Apollinaire (n°26). In the opening poem, *Lettre-Ocean*, Apollinaire uses the space of the page and unusual typography to represent an exchange of letters with his brother in Mexico. A collection of sounds, words, and phrases spiral outward from two rings, at the center of which are not the poet and his brother but rather the elevated heights from which their messages are sent: the Eiffel Tower in Paris « *sur la rive gauche devant le pont d'Iéna* » to « *haute de 300 mètres* » in Chapultepec. In a vision both ancient and modern, Apollinaire's letters cross the ocean on electro-magnetic waves. Importantly, the source of poetic transmission is not located in the expressive lyric subject, but rather within the external structures that makes such transmissions possible. The letters TSF – *transmission sans fil* – are printed in large caps at the side of the page. As with Cocteau's surrealist drama and the photo cited by Le Corbusier, the tower becomes a signifier for the new

[17] Cocteau said of this work that it was about "ready-made expressions, dissociation of ideas from flesh and bones. . . . the miraculous poetry of everyday life." "Les Mariés de la tour Eiffel, by Cocteau and Les Six, "Accessed December 1, 2022, https://pagestranquilles.fr/2021/06/04/les-maries-de-la-tour-eiffel/

[18] Originally Apollinaire described the works as "idéogrammes lyriques" but in 1917 created the neologism: calligrammes, which is a combination of calligraphy and telegram – derived from *calli* (beauty) and grammes (writing). Willard Bohn, *Reading Apollinaire's Calligrammes* (New York: Bloomsbury Academic, 2018), 93-94.

and still-miraculous ways that signals are transmitted between modern subjects. Wireless communication underscores the poem's aesthetic communicability in language and time.

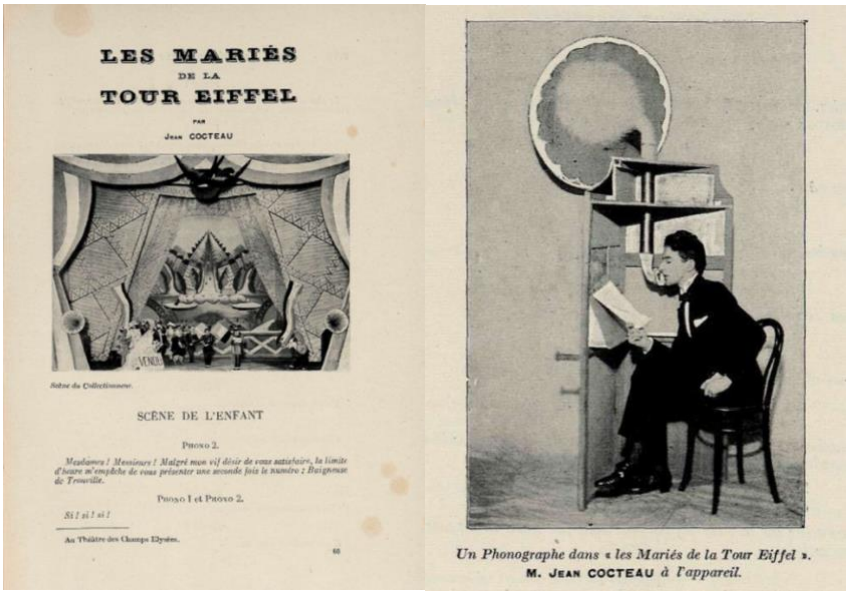

FIGURE 5.3 Jean Cocteau, « Les Mariés de la tour Eiffel », *EN* n°10, 1115, 1121.

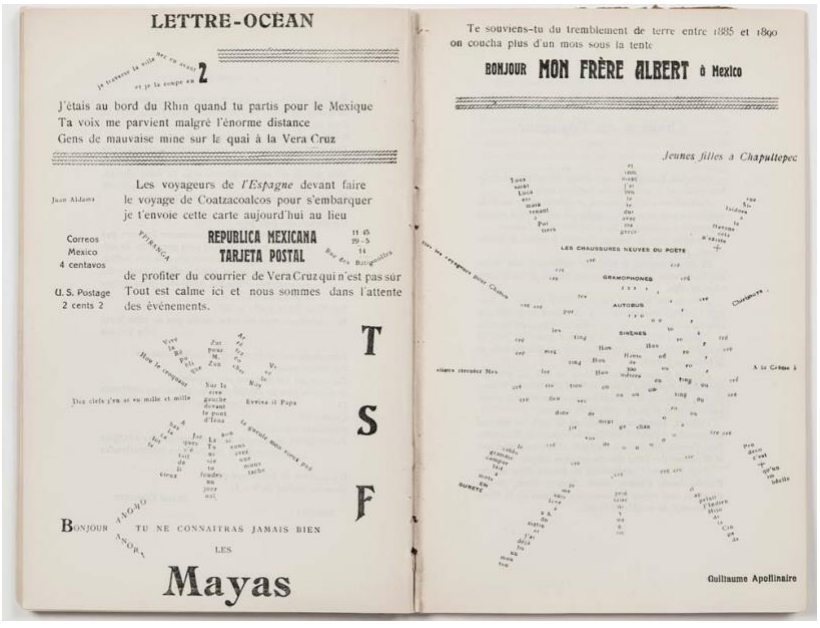

FIGURE 5.4 G. Apollinaire, « Lettre-Ocean », Calligrammes: poèmes de la paix et de la guerre (Paris: Mercure de France, 1918), 38-39.

Apollinaire's *Lettre-Ocean* provides a helpful point of reference for understanding the poet's legacy within the imaginary of *L'Esprit nouveau*.[19] In his 1918 lecture, "The New Spirit and the Poets," Apollinaire had presented a techno-scientific optimism that was attuned to the lines of force connecting the poet to the modern world. Whereas the symbolists aspired to find meaningful *correspondances* in a Baudelairian *forêt de symboles* (forest of symbols), Apollinaire reimagined poetic association as a function of the *liens électromagnétiques* (electro-magnetic ligatures) acting upon and between aesthetic subjects. There is a certain continuity between these two models, since both require the poet to construct the poem from a singular plane of psychological experience. The poet records the "facts of consciousness" as they manifest a variety of sensory perceptions.[20] However, whereas a symbolist poetics still assumed that these terms were guided by a narrative voice, Apollinaire imagined that the poem could function as a more anonymous register of an urbanized fluxus of sounds, images, ideas, and associations.[21] Moreover, where symbolist theory locates this registering function within the general sensibility or "coenesthesia" of the poet, Apollinaire's *liens électromagnétiques* suggest that it is the poem itself, an external construction, that produces a poetic forcefield of meaningful associations. The lyric, once conceived as a music which emerged from an interiority of psychic processes, is now imagined as a set of signals transmitted from a depersonalized aesthetic object: the poem.

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[19] This question is well addressed already by Vicovanu, *L'Esprit nouveau,* 165-170. On Apollinaire's relationship to periodicals, see Simon Dell, "After Apollinaire: *SIC* (1916-19), *Nord-Sud* (1917-18) and *L'Esprit Nouveau* (1920-5)", in *The Oxford Critical and Cultural History of Modernist Magazines Vol. 3: Europe 1880-1940*,(Oxford: Oxford University Press, 2013). A helpful overview of Apollinaire's influence can also be found in Michel Sanouillet, *Dada in Paris*, trans. by Sharmila Ganguly (Cambridge, MA: MIT Press, 2009), 46-48.

[20] Laurent Jenny, *La Fin De L'intériorité: Théorie De L'expression Et Invention Esthétique Dans Les Avant-Gardes Françaises, 1885-1935* (Paris: Presses universitaires de France, 2002), 14.

[21] See Carrie Noland's discussion of Rimbaud, whose mechanical registration of experience is conceived of by Adorno. *Carrie Noland, Poetry at Stake: Lyric Aesthetics and the Challenge of Technology* (Princeton, N.J.: Princeton University Press, 1999), 191.

In summary, while images of wireless transmission are not exclusive to literature and poetry, it seems that theories of lyricism made particular uses of this variation on the mechanical metaphor. Within the visual arts, aesthetic sympathy could be imagined through metaphors of motoric conversion since one could safely assume an externalized artwork as the medium of spontaneous visual communication. With regards to lyricism, however, the journal's authors seem always to be disentangling themselves from a romantic tradition that imagined language as a *direct* mode of communication between subjects. It is as though the conventions of lyricism are so entrenched in the personal, the medium of language so proximate to the psychology of both poet and reader, that an additional set of explanatory models were required to interpret its communicative functions through the prism of the machine.

Amperian Technaesthetics

In what follows, I want to situate the journal's mechanical renderings of lyricism within a tradition of 19th-century technaesthetics, as developed by the physicist-mathematician and one of the founders of electro-magnetism, André-Marie Ampère. I claim that the journal borrows from this tradition in treating literary technique as a new habituation to mental processes grafting together successive ideas, images, sounds, and associations.[22] In his 1834 *Essay on the Philosophy of the Sciences*, Ampère described technaesthetics as the "means by which man acts upon the intelligence or will of his fellows. . . recalling ideas, sentiments, passions, etc. and

[22]It was to this singular plane of psychological experience - what Bergson described as "the immediate data of consciousness" - that literary craft now attended. In his *L'attitude du lyricisme contemporaraine* (1911), for instance, Tancrede de Visan adopted Bergsonian psychology when describing poetry as the accumulation of images gathered by memory and experience, meant to bring the reader towards a unified intuition. He describes the poem as "an exteriorization of a spontaneous consciousness: a direct sound of the soul in contact with beings." Tancrede de Visan, *L'attitude du lyricisme contemporaraine,* cited in Jenny, *La Fin De L'intériorité,* 24.

giving birth to new ones."[23] Critical to Ampère is the way that art experiments with the production of novel experiential phenomena. No different than the scientist, Ampère saw the artist intervening directly within the evolution of the human body and its perceptive capabilities. The historian John Tresch has convincingly argued that this notion contributes to a widely influential (though often overlooked) amalgam of romantic spiritualism and early 19th-century technological Lamarckianism. Tresch defines the latter as "the idea that humans remake themselves and their milieu by means of new, technological organs."[24] In combination with romantic spiritualism, Tresch's claim is that Ampèrian technaesthetics allows for a recasting of individual creativity within a new techno-scientific paradigm.

The theorization of technaesthetic novelty relied upon the emerging study of *habit*, which rendered observable the transformation of both physical and mental aspects of human behaviour. First conceived by the early 19th-century philosopher Maine de Biran, the early science of habit showed that the aesthetic could be a transformative engine for new experiences.[25] For example, Biran observed how music demanded a process of psychological habituation, such that one learned to hear successive sounds and fuse them together through a combination of memory and anticipation.[26] By teaching its listeners to synthesize new combinations of sound in time, music was seen to transform one's capabilities, both sensorially and psychologically.

For the authors of *L'Esprit nouveau*, these technaesthetic concerns with habit and temporality are revisited with a new vocabulary. As we shall see, this focus is deeply informed by the philosophy of Henri Bergson, but also, by a reckoning with the experiences of

[23] John Tresch, *The Romantic Machine: Utopian Science and Technology after Napoleon* (Chicago: University of Chicago Press, 2012), 127-128.
[24]Ibid., 349.
[25] On this aspect of Biran's thinking, see Tresch, 51.
[26] Ibid.

"succession" in theatrical, telegraphic, and cinematic technologies of the day.[27] But even more simply, it seems that the journal's authors are repeatedly trying to articulate how aesthetic practices engage with the accelerated rhythms of modern life. Charles Lalo, for instance, reports how Victor Basch had famously upbraided Peter Behrens for endorsing an architectural style removed from the speed of modern commerce. At the first *Congress on Aesthetics and a General Science of Art* in Berlin (1913), Basch remarked: "In Cologne I was truly dismayed when I saw department stores in the somber style of Egyptian mausoleums.... Department stores which should embody the speed of commerce and exchange ... and above all the rapid changes of fashion."[28] By contrast, the Galeries Lafayette, "held together through only a few iron ribs . . . look as if they could be taken down every day like houses of cards." They better express, "he claims, "the spirit of the time."[29] Invoking a similar theme is Jean Epstein's essay, « *Le phénomène littéraire* », which observes how psychological speed moves at a different rate within each society. Epstein suggests that the cosmopolitan function of art is to move across national borders, and to re-habituate diverse subjects to a new and ever-expanding capacity for change.

It is no accident that Epstein, a filmmaker, is amongst the journal's most active contributors to questions of literature and poetry. Epstein's contributions repeatedly suggest that cinematic experience teaches the spectator to graft together successive ideas, images, and sounds in ways previously unimaginable. Expressing a similar Lamarckianism to that described by Tresch, he argues that this re-habituation has enormous consequences for the evolution of culture

[27] See in particular chapter two, "A Poetry of Attractions: Rimbaud's Machine and the Theatrical Feerie," in Noland, *Poetry at Stake,* 37-59.
[28] Basch continues: "Does not Herr Behrens think that our department stores-the new Printemps, the Galeries Lafayette ... held together through only a few iron ribs, which look as if they could be taken down every day like houses of cards and erected elsewhere [does he not think] that they better express the spirit of the time?" Cited in Rosenblatt, "Empathy and Anaesthesia," 87-88.
[29] Ibid.

and civilization. In *La poésie aujourd'hui* (reviewed in issue n°10), Epstein claims that modern lyricism relies upon the poet's capacity to mechanically record an aggregate of psychological sensations accompanying the rapid-fire variability of modern life. He writes:

> The whole of these multiple, entangled sensations, weak and rapid enough not to be perceived individually any more than the pricks of two compass points too close together, constitutes a kind of sensitive tone according to which the individual will react. The habit of observation and egotistical analysis, which is what a sensitive nature cannot turn away from, consists therefore in a meticulous contemplation of its coenesthesia.[30]

In this passage, Epstein refers to 19th-century psychophysiological experimentation, which sought to locate the thresholds between embodied sensation and conscious awareness.[31] By claiming that sensations too "weak and rapid" to be perceived nonetheless contribute to the "sensitive tone according to which the individual will react," he attributes to the poet's unconscious "coenesthesia" (i.e., a generalized sensibility arising from multiple bodily stimuli) a capacity to resonate in response to the surrounding milieu. For Epstein, the act of poetry does not lie in this coenesthesia per se, but rather in the "habit of observation" to which it is attuned.

What interests me here is the way that poetry is imagined by Epstein as a mechanical act of registration that is attuned to, though *distinct* from, each poet and their idiosyncratic (coenesthetic) experience. Lyric expression is seen as a process of manufacture. Epstein nicely encapsulates this aspect of poetic craft with reference to a poem by Jean Cocteau. In *Potomak*, Cocteau writes:

> [I wait], sometimes for hours, alone, standing, my lamp extinguished, for parliamentarians of the unknown, here I am, something completely machine, completely antenna. . . . A Stradivarius of barometers. A tuning fork. A central office of phenomena.[32]

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[30] Jean Epstein, *La Poésie d'aujourd'hui (Paris, Éditions de la sirène, 1921)*, 83.
[31] The pin-prick experiment referred to here is a classical psychophysical measurement of the "just noticeable difference" in the tradition of Fechner. See Alexander, *Kinaesthetic Knowing,* 46.
[32] Jean Epstein, *La Poésie d'aujourd'hui*, 29.

This passage from Cocteau uses the same technologically receptive image of antenna which we encountered earlier with Picabia. The poet, though "alone" a highly sensitive and individualized creature, is receptive to "phenomena" more generally. Immediately following the poem, Epstein writes: "To observe others or oneself, it is all one."[33] As we saw earlier with reference to Apollinaire's *liens électromagnétiques*, the individuation of the poet is met with a collapsing of interior and exterior phenomena onto a singular plane of experience.[34] Epstein's reimagining of lyric craft finds a chorus in the journal's various efforts to describe a uniquely modern convention in poetry. Contributors repeatedly use a techno-scientific vocabulary to explain the legacies of Poe, Baudelaire, Rimbaud, and Mallarmé (amongst others), presenting these authors as the first to have mechanically recorded the kaleidoscopic variability of modern experience.[35] The singing poet is transformed into a machinic figure: a "habit of observation" attuned to the various transmissions passing within ambient life.

What I have introduced here is thus a model of aesthetic subjectivity that is radically individualized in its sensitivity, yet also strangely depersonalized and mechanical in its poetic craft. I see the contributors to the journal as trying to define a modern lyricism that can hold these two things together. Laurent Jenny has described this paradox as "the progressive exteriorization of romantic interiority" – a turn in modern poetics whereby psychological depth and complexity is newly attributed to the external or formal dimensions of the poem.[36] In what

[33] Ibid.
[34] Jenny, *La Fin De L'intériorité,* 30.
[35] Zdislas Milner says of Mallarmé's poems that objects of experience "do not remain isolated" but rather "evoke new connections."Milner, « Gongora et Mallarme Milner », *EN* n°3, 293. Similarly, Rimbaud is described as having discovered "a new way of thinking. . . unforeseen, acute, sharp, he sees correspondences, he grants the sound to the color, and the color to the form, the form to the rhythm; he wants a poetic word accessible to all the senses." Epstein, « *Le phénomène littéraire », EN* n°13, 1433.
[36] Jenny, *La Fin De L'intériorité,* 30.

follows, what I hope to contribute to Jenny's observation is the way in which this paradox was informed by a particular set of exchanges between the arts and sciences. Like rhythm, lyricism was a cipher for experiences both ancient and new. And like rhythm, we shall see that lyricism could also be reinvented through a new set of metaphors borrowed from experimental psychology.

Lyric Technaesthetics: Two Opposing Regimes

I now want to distinguish the journal's approaches to lyricism within two opposing technaesthetic regimes. In the first, represented by Pierre Reverdy, poetic craft seeks to produce psychic equilibrium in its readers. This, I suggest, is a technaesthetic lyricism modelled on architectural stasis. Opposing this camp are the Puteaux cubists (Duchamp and Picabia), the Italian futurist Marinetti, Bretonian surrealism, and Dada – all of whom aim to use art and poetry to agitate the psyche by introducing it to the sexually polymorphous, untethered dynamism of the modern metropolis. My aim here is to situate the journal's authors within this opposition, and to show its relevance for understanding aesthetics as a function of psychological hygiene.

I begin with Pierre Reverdy who played a central role in guiding the literary orientations for all three of the founding editors. Amongst the artistic coteries that assembled during and after the war – *Art et Liberté* (1916), *Lyre et Palette* (1916-1918), *Art et Action* (1919) – Reverdy brought a critical acuity that spanned disciplines, while refusing to enjoin them under one syncretic art. This refusal brought a sobering tone to the euphoria of novelty that followed in the wake of cubo-futurist experimentation. And whereas Apollinaire spoke to those who saw the avant-garde as a merging surrealistic *parade* (at times even subsuming his own poetry under the supremacy of painting), Reverdy maintained the separation of aesthetic disciplines while also

promoting their common orientation towards the sciences. In issue n°6 of the journal, Reverdy recounts his desire to "organize our efforts, [and] unite our ways of working into a single cause."[37] Amongst the wartime journals that preceded *L'Esprit nouveau*, Reverdy's *Nord-Sud* exemplified this common disciplinary orientation.[38]

Reverdy was instrumental in forging a link between poetic lyricism and architecture. While he may have balked at his contemporaries' coupling of poetry and painting under the title of "literary cubism," he nonetheless shared with Paul Valéry and others of an earlier generation a willingness to think poetics under the guise of construction. "We are still in the midst of formation and struggles," he writes in « *L'esthétique et l'esprit* », "but who would dare to deny that there are already a few solidly built buildings on this new land?"[39] Though he never explicitly unpacks this metaphor, its underlying logic can be found in his essays on literary technique.

Reverdy espoused a poetics that rejected representation. "Creation," he writes in *Self-Defence*, "is a movement from the interior to the exterior, and not from the exterior to the façade."[40] With this credo – later summarized by Max Jacob simply as « *l'art est l'exteriorization* » – Reverdy introduced a subtle variation to the psychology of lyric expression.[41] The poem, he thought, should exist as a new plastic reality. While the impulse to make a work might be derived from a complicated nexus of sensibility and emotion, Reverdy thought that more important than these primal associations were the ligatures (*liens*) that the poem makes possible for its eventual reader. Stripping away the anecdotal and accidental

[37] Reverdy, « L'esthetique et l'esprit », *EN* n° 6, 674.
[38] Vicovanu, *L'Esprit nouveau,* 46-59.
[39]Ibid.
[40]Pierre Reverdy, *Self defense; critique esthétique* (Paris: Imprimerie littéraire, 1919) 6-7.
[41]Jenny, Jenny, *La Fin De L'intériorité,* 30

qualities of expression, Reverdy's poetics removes the stress from the initial stirrings of motivated speech and places it on the work's capacity to produce effects. "Direct contact between the work and the reader," reads an aphorism from a 1917 essay.[42]

Reverdy best articulates poetry's expressive function in his theory of the *image*. Though referred to in its singular form, Reverdy's image does not signify a momentary idea or discrete picture in the imagination but rather a coherent synthesis of multiple, temporally successive parts. In ways reminiscent of Maine de Biran's notion of habituated succession, yet newly informed by the intervals of cinema, Reverdy observed that the image never occurs in isolation. It is, he thought, an "achieved association" between "disparate elements" gathered from a singular plane of experience.[43] Reverdy claims that the psychological "force" of a poetic image is derived from (a) the remoteness of terms brought together within the poem but also (b) the "correctness" of the logic they impress upon their reader: "An image is not strong because it is brutal or fantastic – but because the association of ideas is distant and fitting."[44]

Reverdy's criteria of "correctness" in lyric construction was provided as a corrective to the culture of novelty that pervaded the pre-war avant-gardes. His theory of the image is in direct counterpoint to the explosiveness of Marinetti's *paroles in Liberta,* and to Breton's experimentation with automatic processes, both of which celebrate the sparks and charges resulting from the formation of new psychological associations.[45] Breton, having been exposed to hypnotic practices performed as a psychiatric intern at the Salpêtrière hospital, formulated a

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[42]Pierre Reverdy, « Emotion », *Nord-Sud* n° 8, n.p.
[43] Reverdy cited in Anna Balakian "On Reverdy" in *Modernism: Challenges and Perspectives* (Urbana: University of Illinois Press, 1986),100
[44] *Pierre Reverdy,* « L'image », *Nord-Sud* (1918): 6.
[45] Reverdy's lyricism can also be read as a mounting and direct response to valorizations of the "elliptical" or "metamorphic" properties of poetic meaning - both of which he found in the growing popularity of Breton's surrealism. See Reverdy's letter to Breton in Marguerite Bonnet, *André Breton : Naissance De L'aventure Surréaliste* (Paris: Corti, 1975), 132.

mechanics of literary technique that sought out similarly hypnotic dynamics in the invisible *ébranlement* (shaking) of the reader.[46] By contrast, we might say that Reverdy's poetics found its model of suggestibility not in movement and convulsion but rather in a form of psycho-spiritual *stasis*.

For Reverdy, the image's effects on the psyche are modelled on architectural construction. He claimed that a poetic intuition could only be achieved through a means of signification that was evenly distributed across a singular aesthetic plane. Where the uses of metaphor and analogy typically involve bringing one semantic term into the service of another, Reverdy argued that any such hierarchies in the order of signification were still too reliant upon the personal whims of the poet. A truly purified image had to be equally distributed between its many parts. What I want to underscore here is how Reverdy conceived of this stasis, not just as a formal achievement, but as a question of the effects this would have on a reader. Lyric construction resulted in a "psychic syntax:" a unified intuition of meaning evenly distributed between its various parts.[47]

While Reverdy was a clear inspiration to the founding editors of the journal, there are also some notable discrepancies between his proto-Purist theories of lyricism and Purist construction proper. Compare, for instance, Reverdy's notion of the image as a unified intuition with Le Corbusier's efforts to diagram the underlying logic of aesthetic constructions. In « *Les tracés régulateurs* », Le Corbusier superimposes geometric lines on paintings and architectural photographs, claiming to reveal the dynamic forces contained within a singular aesthetic frame. By unmasking the hidden logic unifying these works, Le Corbusier supposes an unmasking of

[46]Anna Balakian, *Surrealism; the Road to the Absolute (*New York: Dutton, 1970), 123-140.
[47]On this element of Reverdy's poetics, see M. Stone-Richards, "Nominalism and Emotion in Reverdy's Account of Cubism, 1917-27," in *Art Criticism Since 1900, ed. by Malcolm Gee* (Manchester, UK: Manchester University Press, 1993), 110-12.

the perceptive (i.e., technaesthetic) intuitions effected by these constructions.[48] Reverdy, by contrast, insisted that such a logic should remain elusive. Indeed, it is the very non-disclosure of a work's unifying principle which preserves its emotional resonance. He writes: "The mystery which emerges from a work of which the reader is moved without explaining himself how it was composed is the highest emotion that one could ever reach in art."[49]

In this respect, Reverdy is much closer than Le Corbusier to an older generation of Bergsonian-inspired thinkers for whom the logic of a work's unification could remain at the level of intuition. To this generation, Leonardo da Vinci's *Mona Lisa* had become the paradigmatic example of an intuited unification, having been used by Bergson (citing the 19th-century philosopher Félix Ravaisson) to describe the embodiment of an organizing principle that remained inaccessible to the kind of analysis undertaken by Le Corbusier. Bergson writes in the *Creative Mind*: "There is, in Leonardo da Vinci's *Treatise on Painting,* a page that Ravaisson loved to quote. It is the one where the author says that the living being is characterized by the undulous or serpentine line, that each being has its own way of undulating, and that the object of art is to render this undulation distinctive."[50] Whereas Le Corbusier's diagramming of the *tracés régulateurs* were conveyed in rectilinear elevations, the puzzle of the *Mona Lisa* was attributed to a serpentine linearity that extended posteriorly (as opposed to graphically) into the background of the painting. While both seek to convey the technaesthetic effects of a closed aesthetic system, the serpentine line described an intuition that, even within painting, one could only process over time. By contrast, Le Corbusier's *tracés régulateurs* refer to a reality both graphic and

[48]Le Corbusier, « Les tracés regulateurs », *EN* n° 5, 563.
[49]Pierre Reverdy « L'Emotion », *Nord-Sud* n° 8 (1917): 6.
[50] Henri. Bergson, *The Creative Mind: An Introduction to Metaphysics,* (Mineola N.Y.: Dover Publications, 2007), 250.

momentary – which for Bergson, represented no more than an aesthetic myth propagated by the photograph.[51]

Further examples of such differing technaesthetic visions can be gleaned through the complex legacy of Leonardo da Vinci. The year 1919 marked the quadricentennial of Da Vinci's death, and thus occasioned the re-publication of Paul Valéry's *Introduction to the Methods of Leonardo Da Vinci* (originally published in 1895). The work was a speculative outline of how Leonardo's techniques prefigured the modern era's merging of art and science. Central to Valéry's argument is a mechanical and indeed thoroughly technaesthetic conception of literary technique. Da Vinci's "obstinate rigour" is characterized as an incessant inquiry into the invisible lines of force connecting various phenomena.[52] Valéry writes: "The secret – whether of Leonardo, or of Bonaparte, or that of the highest intelligence at a given time – lies and can only lie in the relations they found and were compelled to find – among things of which we cannot grasp the law of continuity."[53] Valéry conceived of Leonardo as both artist and scientist insofar as his work pursued the mechanical linkages underpinning the most diverse phenomena: objects in flight, smoke from a fire, the impact of words on the human imagination. Working in each domain, Valéry's Leonardo discerns and conveys an aesthetic "law of continuity" while also preserving the mystery of its compositions. In this account, again the *Mona Lisa* is cited as the paradigmatic example of an undisclosed pleasure to be found in painting.

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[51] As noted in a previous chapter, Bergson's described Marey's snapshots as "a perfect example of what reality is not." Bergson, *Creative Evolution,* 263.

[52] Paul Valéry, "Introduction to the Methods of Leonardo da Vinci," in *Collected Works of Paul Valéry,* vol. 8 trans. M. Cowley, James R. Lawler (Princeton N.J.: Princeton University Press, 2015), 6. The technaesthetic dimensions of Valéry's constructivist approach are derived from Edgar Allan Poe's "Philosophy of Composition" about which Valéry writes: "It is an entirely *a posteriori* technique, based on the psychology of the *listener,* on the knowledge of the different notes that must be sounded in another's soul." Paul Valéry, "Literary Technique," *The Art of Poetry,* trans. Denise Folliot (Princeton N.J.: Princeton University Press, 2014), 319.

[53]Paul Valéry, "Leonardo,"13.

Valéry ultimately establishes a correlation between the techniques of literary composition (as first defined by Edgar Allan Poe) and the domain of architectural construction.[54] Valéry bridges poetry and architecture with a psychological mechanics attuned to the linkages between disparate objects and their cumulative effects on a reader or viewer. He argues that, just as modern physics since Faraday has rediscovered the central principle of Leonardo's technique (drawing attention to the "invisible lines of [electro-magnetic] force" connecting our universe) Poe's notion of literary composition prompts a merging of art with the science of aesthetic effects. In a near exact reprisal of Ampère's technaesthetics, the work is conceived "as a machine designed to arouse and assemble the individual formations" of a given mind.[55] In the final analysis, Valéry's treatise on Leonardo arrives at "that psychological postulate of continuity which, in our faculty of knowing, resembles the principle of inertia in mechanics."[56] Whether anticipating or directly informing Reverdy and the Purists, Valéry signals a new orientation of lyric poetry towards a principle of an elusive statics.

By the time of its republication in 1919, Valéry's essay represented an older and more established faction of the avant-garde. Its reprisals by Jacques Rivière at the *Nouvelle Revue Francaise* and by nascent Purists such as Ozenfant and Reverdy were conceived as a "return to order" following the war.[57] But it is also important to recall how such a "return to order" was defined by its opposition to a countering tendency in Paris Dada. Whereas literary technique under Valéry, Reverdy, and the Purists aspire towards the production of psychological stasis,

[54] The work of art is a "machine to impress the public; to arouse emotions and their corresponding images". Cited in Brain, *Pulse of Modernism,* 142.
[55] Paul "Valéry, *Leonardo*," 62.
[56] Ibid., 43.
[57] See the conference proceedings from Louis Roux, Jean Laude, and Monnier Gérard. *Le Retour À L'ordre: Dans Les Arts Plastiques Et L'architecture, 1919-1925 : [Actes Du Colloque D'histoire De L'art Contemporain, Musée D'art Et D'industrie De Saint-Etienne, 15-16-17 Février 1974],* (Saint-Etienne: Centre interdisciplinaire d'études et de recherche sur l'expression contemporaine, 1986).

Dada promotes a countering vision of the effects produced by dynamic novelty and flux. This Dadaist vision ultimately informs Breton's theorization of the lyric as a convulsive *ébranlement* brought upon by the suggestive shocks of new psychological associations. Well before Breton, however, this principle of dynamism was already at the centre of pre-war experimentations conducted by the Puteaux cubists.[58] Picabia and Duchamp tested different artistic formats, exploring how they could newly express the human subject as a field of electro-magnetic forces. Together they foregrounded the erotic dimensions of experience. Picabia's mechanomorphs from 1913-1919 and the development of Duchamp's Large Glass started in 1912 both express the eroticized human as a perpetual motion machine. The works translate conventional forms of narrative painting and portraiture into what David Joselit has described as a diagram of the "polymorphous" human machine.[59] The works suggest that it is precisely the impossibility of a coherent psychological stasis that produces the endless dynamism of human experience.

I am articulating here an emerging conflict between two mechanical conceptions of the aesthetic subject. To further clarify this distinction, it is worth recalling that in 1919 (the same year that Valéry's Leonardo essay was republished by the *NRF*), Duchamp and Picabia collaborated on their own series of reflections on the legacy of Leonardo Da Vinci. The moustache drawn by Duchamp on a postcard of the *Mona Lisa* – accompanied with the obscene acronym LHOOQ, i.e., she is hot in the ass – is well known as a gesture of irreverence enacted

[58] George Baker's riveting origin-story of Paris Dada describes a long-distance car ride in which Duchamp, Picabia and Apollinaire formulate many of the questions that would come to occupy the next decade of experimentation. George Baker, *The Artwork Caught by the Tail: Francis Picabia and Dada in Paris* (October Book. Cambridge, Mass.: MIT Press, 2007), 1-4.

[59] Joselit writes: "Far more important that Picabia's adoption of a vocabulary drawn from industry in his "machine drawings" is the model of polymorphous connectivity between discreet elements that these works deploy in order to capture the uneven economic and psychological transformations and the jarring disequilibrium characteristic of modernity." David Joselit, "Dada Diagrams," in *The Dada Seminars*, ed. Leah Dickerman, and Matthew S Witkovsky (Washington, DC: Center for Advanced Study in the Visual Arts, National Gallery of Art, in association with D.A.P./Distributed Art, 2005), 232.

upon a cultural ready-made.[60] And indeed, recall that we encountered a similar irreverence in Cocteau's derision of the *Mona Lisa* in *Les mariés de la tour d'eiffel*. But less familiar is Picabia's text-painting *Double-monde,* made during the same period. In this work, Picabia presents the *Mona Lisa* as a serpentine line which, as we have seen, signified its profound yet elusive continuity within the Bergsonian-inspired discourse of the day. Comparable to Duchamp's moustache, Picabia's irreverent gesture inserts an observable break in the continuous line, while also crowding the edges of the painting with false orientations and elliptical homonyms. Language is represented as untethered and polymorphic. Regardless of the aesthetic "second world" to which it belongs, the image is taken from its pedestal as a timeless masterpiece and shown to be destabilized by the erotic flux of modern experience.

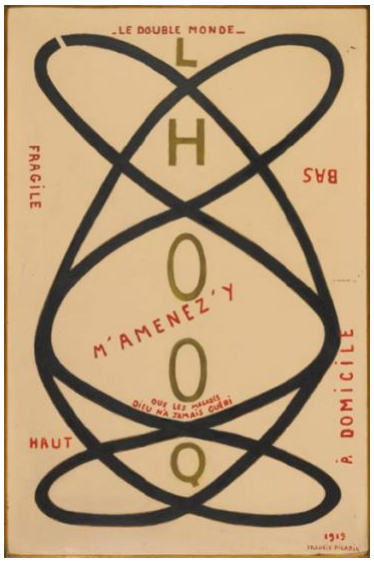

FIGURE. 5. 5 (left) Marcel Duchamp, *LHOOQ*, ink and collage, 1919. Private Collection.

FIGURE. 5. 6 (right) Francis Picabia, *Le double monde*, oil on board*,* 1919. Centre Pompidou.

[60] The gesture is recounted by several articles in Martha Buskirk and Mignon Nixon, eds., *The Duchamp Effect* (Cambridge, Mass.: MIT Press, 1996). See also: Dalia Judovitz, *Unpacking Duchamp: Art in Transit* (Berkeley: University of California Press, 2005), 121-157.

Picabia's *Double-monde* was to become significant, if not as a well-known painting, as a performative prop in the cabaret-style launching of the surrealist magazine *Littérature* in 1920. According to M. Senouillet's retelling of the event, the audience was scandalized by the presentation of the work and by the simultaneous reading of a critical essay by Apollinaire.[61] The launch represents for Senouillet a foundational moment in the emergence of Paris Dada and its transition to Surrealism. Senouillet's narrative, however, does not acknowledge Picabia's notable absence from the event in which his painting was shown or that he had already signaled his departure from Dada well before the moment of its official formation. This fact would become relevant to the editors of *L'Esprit nouveau*, who in issue n° 9 published an open statement by Picabia against the Dada compatriots who held him in such high esteem. An editorial note prefaces the letter by first allowing that Dada has been useful *to L'Esprit nouveau*: "Dada at best: young people attempting, by violent means, the sanitization of art from its ridiculous snobberies."[62] Still, the clear purpose of the editorial note (under the guise of a "small contribution to the history of today's debates") is to mark an affiliation with Picabia based on his departure from the movement. This affiliation, like that expressed in the *Ce mois passé* article that began this chapter, rests on a mutual antipathy towards novelty as the aim of modern art and poetry. Picabia recounts how the initial dynamism and novelty he explored with Duchamp later became its own militant orthodoxy. Breton and the editors of *Littérature* are dismissed as mere "illustrators," destined "to repeat ad infinitum their own calcified mantras of novelty and

[61] Senouillet, *Dada in Paris*, 104.
[62] « Francis Picabia et Dada », *EN* n° 9, 1059.

experimentation."[63] "Each day looks like the other if we don't subjectively create the illusion of a novelty and Dada is not new anymore," Picabia concludes.[64]

In this albeit limited affiliation with the Purists, Picabia's statement is a helpful reminder that the divergence between Purism and Paris Dada cannot be reduced to a simple choice between avant-garde novelty and modern traditionalism. At stake, rather, is a question about the techniques through which novelty emerges – and whether it can be tied to a larger program. Whereas for Picabia, a wholly contingent and subjective illusion provides all that is necessary for this program, for the Purists there remains a desire to see art and science mutually informing the evolutionary perfectibility of the human.[65] With this question in mind, let us now consider in greater detail how technaesthetic lyricism was considered from the vantage of modern psychology. How were these aesthetic commitments conceived within the medicalized framework of energy hygiene?

Paul Dermée

Paul Dermée was a contentious figure in the shaping of *L'Esprit nouveau.* His career as a critic was launched by his 1918 manifesto « *Quand le symbolism fut mort* », published in the first issue of Reverdy's *Nord-Sud.* Like *Après le Cubism,* Dermée's essay recognized the fruits of the pre-war avant-gardes, but now called for a period of stability and organization. The essay quickly

[63]" I blush to be so weak, but, what can I say, I don't like illustrations and the directors of "Literature" are only illustrators. I like to walk at random, the name of the streets doesn't matter to me, each day looks like the other if we don't subjectively create the illusion of a novelty and Dada is not new anymore.... for the moment. The bourgeois represent the infinite, Dada would be the same if it lasted too long." Ibid., 1060.
[64] Ibid.
[65] Even the « Ce Mois Passe » article cited earlier ends with editors taking some distance from Picabia: "If I understand correctly, you think, Mr. Picabia, that the work of genius is something like an unconscious sweat of the man of genius and that genius cannot allow itself to reflect on its means of expression." Citing Seurat, Chateaubriand and Rembrandt, they restate their commitment to a literary and artistic craft that, like *les traces regulateurs* can be made explicit in its mode of communicability. [Editorial Note] « Ce Mois Passé », *EN* n°17, n.p.

earned Dermée the approval of Apollinaire and his many disciples.[66] This proved to be short-lived, however, due to a series of conflicts and estrangements: first with the imagist philosophy of Reverdy, then against the utilitarian inclinations of Ozenfant and Jeanneret, and later, most irreparably, with the budding Surrealist wing of the Paris Dada movement (this following a scandalous lecture in which he compared Max Jacob to the clinically insane).[67] These conflicts could be seen to emerge, as Iuliana Viconavu describes, from Dermée's desire to sustain two opposing tendencies within the avant-garde: a Dadaist anti-traditionalism that yielded a heterotopia of the new, and a more programmatic synthesis of the latest achievements within art and science. Where these contradictions produced intrigue around the figure of Apollinaire, in Dermée they seem to have been regarded as the signs of an opportunist hedging between multiple commitments.[68] Indeed, it is remarkable that the same person who tirelessly solicited the arch-anarchist Tristan Tzara to Paris was meanwhile writing a 600-page tome establishing the psychological basis for success in commercial poster design.

Dermée's early contributions to *Nord-Sud* suggest an affiliation with the nascent Purism of Reverdy. He expresses an urgency to separate the arts according to each of their "means," while also calling for a common "attitude" to ground a new age of classicism.[69] The latter he defines not by stylistic pastiche (for Dermée a sign of decadence), but through the reclaiming of an organizational "tendency" contrary to romanticism. Following Reverdy, Dermée describes this tendency as a process of radical exteriorization. "The aim of the poet is to create a work that lives outside himself, his own life, which is situated in a special sky, like an island on the

[66] Apollinaire's approval of Dermée is recorded in a letter which is included in issue n° 26 of the journal. G. Apollinaire, « Lettre à Paul Dermée », *EN* N° 26, n.p.
[67]Senouillet, *Dada in Paris*, 97.
[68] Ibid., 115.
[69] Paul Dermée, « Quand le symbolisme fut mort... », *Nord-Sud* N° 1 (15 mars 1917): 2-4.

horizon."[70] Dermée expands this principle into a notion of lyric manufacture that draws him into proximity with the utilitarianism of Ozenfant and Jeanneret. He valorizes simple objects (e.g., lightbulbs, water-vessels, pipes, and hats), understanding their utility as "an internal constraint" that helps to clarify production.[71] Dermée distinguishes between classicism and romanticism along these same lines: "Whether we care about the electricity that flows through nature or is discharged in the midst of storms: Lost force = romantic spectacle. It is a question of capturing it, giving birth to it, if necessary, then bringing it into this bulb so that it lights our nights."[72] In this image, Dermée models the aesthetic after a closed energy system, and one that serves a particular function. And yet, note the ambiguity of this function: "light[ing] our nights" is a relatively open signifier used, amongst other things, as a figure of poetic revery. (Recall here Cocteau's image of the poet, cited by Epstein, "[I wait], sometimes for hours, alone, standing, my lamp extinguished. . . [73]) Such ambivalent uses of functionalism's quotidian icons will later be expressed more fully in Dermée's stated resistance to the utilitarian function of poetry. Ironically, and much to the chagrin of the founding editors, this resistance was first and most clearly articulated in his first contributions to *L'Esprit nouveau*. There he writes very explicitly: "Lyricism, being by its origins unsuitable for practice, will not have an external and utilitarian purpose."[74]

Dermée's affiliation with both Reverdy and the Purists proved to be short-lived. Soon after he assumed the directorship of the journal, it became clear that Dermée was not quite as removed from the spirit of novelty that he criticized in his early writings. An exchange of letters with Tristan Tzara reveals the degree to which Dada still provided the central orientation for his

[70] Ibid.
[71]"The constraint must be internal; the work of art must be conceived as the worker of a pipe or a hat conceives the object of its manufacture; all the parts must have their place strictly determined according to their function and their importance." Ibid.
[72]Paul Dermée; « Un prochain age classique », *Nord-Sud* N° 11 (Janvier 1918): 3-4.
[73]Jean Epstein, *La Poésie d'aujourd'hui*, 29.
[74] Paul Dermée, « Decouverte le Lyricim », 34.

poetics.[75] Unsettling to the other editors (recall Ozenfant's condescension towards Dermée, the "brave boy [who] had gotten it into his head to make a Dada magazine") was Dermée's espousal of a French "Cartesian Dadaism." This combination is not quite as far-fetched as it may sound: in the Dadaist's notion of a brutal rupture with the past, Dermée sensed the grounds for a new spirit of scientific experimentation. Evoking the figure of an empty page (a motif similarly familiar to Purist painting), Dermée imagined that a new techno-scientific optimism could be expressed by the Cartesian maxim: « *je ne veux même pas savour s'il y a eu des hommes avant moi* » ("I don't even want to know if there were men before me"). [76] By contrast, recall here how in the *Ce mois passé* opening this chapter, Le Corbusier and Ozenfant state their affinity with Picabia as a mutual exhaustion with a younger generation that believed "the great chic" was to show their genius by declaring that all those who came before them are idiots."[77] My suggestion here is that a relationship to novelty and to the past were amongst the fault lines that ultimately separated the founding editors from Dermée.

Dermée's writings on lyricism express a critique of rationalism from the perspective of a new Bergsonian science. In his first essay for the *L'Esprit nouveau*, « *Découverte le Lyricism* », Bergson is cited as the transitional thinker that has most enabled the new science of lyricism.[78] What Dermée previously theorized as a dichotomy between the classical and romantic is now replaced by the Bergsonian opposition between calculative intelligence and the "purely" affective logic of lyric processes.[79] Again, ironically, it is in the pages of *L'Esprit nouveau* that

[75] Senouillet, *Dada in Paris*, 474-5.
[76] On the front cover of Tzara's 3rd issue of Dada magazine was written Descartes' maxim "I dont even want to know if there were men before "Je ne veux même pas savoir s'il y a eu des hommes avant moi." Senouillet reports that Reverdy had suggested *Carte blanche* as the title for the surrealist journal *Literature*. Senouillet, *Dada in Paris*, 74.
[77] [Editorial Note] « Ce Mois Passé », *EN* n°17, n.p.
[78] Bergson "wanted to boldly rise on the wings of intuition" to go and poke out the clear eyes of intelligence." Paul Dermée, « Decouverte le Lyricim », 29.
[79] Ibid., 30.

one finds Dermée's most ambitious attempts to elaborate this Bergsonian science of intuition into a psychologically grounded Surrealist poetics.

Dermée's contributions to the journal describe the psychological mechanisms particular to lyric manufacture. Drawing from experimental psychology, he characterizes lyricism as a function of automatic processes.[80] He cites a medical tradition whose beginnings are found, he writes, in Moreau de Tours' 1855 dissertation on the identity between madness and lyric process as "an outpouring of the dream in real life."[81] In his essay « *Appels de sons: Appels de sens* » Dermée describes how cerebral fatigue produces a weakening of the intelligent or symbolic functions but also a heightened sensitivity to unconscious associations produced by the "sound call." In literary constraints such as puns, homonyms, and rhymes, Dermée argues that one finds an opening into a field of automatic processes otherwise stifled by the calculative mind.[82] Against Antheaume and Dromard's *Poetry and Madness* (1908), Dermée claims that these automatic associations have nothing to do with chaos or chance. The "words are imposed on automatism by our deepest tendencies. They are even 'overdetermined' according to the Freudian expression and express what is most intimate in us."[83] This is a noteworthy qualification, since it amounts to saying that there is meaningful associative work being done by the unconscious, and

[80] Dermée acknowledges this shift in emphasis in « Panlyricism » when saying: "All individual and collective psychological states which involve lyricism should be carefully studied. Up to now they have been studied only from points of view that differ markedly from the one we are interested in here." Dermée, « Panlyricism », *EN* n° 28, n.p.

[81] This is an association, he says, that has been pursued under many guises, both clinical and artistic. And though he deplores the recent studies conducted by asylums – "the most arbitrarily filtered and censored documents in the world " – he praises Freud for turning our attention to the threshold between unconscious and conscious activity, and the processes of censorship or camouflage that accompany the passage from dreaming into waking life. Paul Dermée, « Panlyricism », *EN* n°*28.* n.p.

[82] "On the injunction of our tendencies, automatism acts within the limits of its means and, by taking the form of *psittacism*, by providing the consciousness with rhymes, alliterations, etc., it is the only way to express itself . . . Rhymes, they said, are not hindrances, they are wings. A poet does not struggle to rhyme; rhymes appear to him spontaneously in advance of research." Dermée, « Appels de sons: Appels de sens », *EN* n° 5, 557.

[83] Ibid.

that the role of the poet is to make this work accessible to the thinking mind.[84] "Like the marble used by a sculptor," Dermée claims, "our unconscious associations are the *means* of poetic construction."[85] In Rimbaud, Dermée will find the clearest examples of how "lyric flow" manifests the inner individual as a dreamy kaleidoscope of images, sensations, and feelings: "The film unfolds, varied and captivating, and all the profound richness of the inner life flows through the consciousness in a wide current: our soul is filled with a spontaneous melody: it is the "lyrical flow" that sings!"[86]

From a combination of Freud and Bergson, Dermée thus ultimately argues for a "surrealism of images" that objectifies our deepest lyric tendencies, while staving off the neurasthenia and the "singular emptiness" that afflicts an overabundance of calculative reason.[87] Like Victor Basch, we might say that he turns to poetry as a corrective to the evolutionary advancement of a calculative, overly rational modernity. And yet, unlike Basch, Dermée is also interested in how poetic language offers a form of relief from an embodied, affective experience. Poetry is not only an enlivening of our deepest tendencies but also a hygienic purging. This dimension of Dermée's thinking is most clearly articulated in response to the philosopher and psychologist Ludovic Dugas.

Trained in Ribot's clinic, Dugas' research was largely organized around the so-called diseases of the will. His 1898 work *On Timidity* classified the social phobias inhibiting normal functioning, for which he prescribes a regimen of mental gymnastics akin to the therapeutics of

[84] Recall that this debate played out between Flournoy and Janet, regarding the unconscious and its capacity to do productive work. On this debate in poetry see Shamdasani, "Automatic writing and the discovery of the unconscious," 100–131.
[85] Dermée, « Decouverte le Lyricim », 35.
[86] Ibid.
[87]"Alone, the busy man, the calculator, the combiner, does not sing. He is the abnormal man who pays through neurasthenia and this singular emptiness that settles in his chest, around fifty, the contempt of the inner life. Paul Dermée, « Decouverte le Lyricim, » 35.

Pierre Janet.[88] But Dugas also found within such pathologies several tendencies conducive to the normal functioning of the individual. In a landmark study from 1898, he coined the medical usage of the term "depersonalization" to describe the curious detachment reported by patients who suddenly felt alienated from their own experience: thinking thoughts that seemed foreign, recalling memories that proved to be false, or most importantly for Dermée, speaking in languages that were not properly one's own.[89] Dugas argued that such conditions, previously misunderstood as sensory malfunction, were caused by a weakening of the active, synthesizing principle that constitutes the person at large. Through these case studies of extreme depersonalization, Dugas wanted to demonstrate how psychic functioning relied upon a similar capacity to detach from the shocks and novelties of raw experience. Depersonalization, he claimed, is a salutary function of the normative psyche.

Dugas' 1903 work "On the Imagination" extends the concept of depersonalization into creative activity. He describes a capacity to translate an overwhelming complex of feelings and sensations into ever more abstract or reflexive "constructions."[90] Through processes of "objectification and combination," Dugas claimed that the imagination not only produced new ideational phenomena but also served an *inhibitory* function: reducing the flux of experience to a limited and manageable set of object-relations.[91] "Sensation," he writes, "is a violent jolt; the image, a light vibration of the nerves. . . The image is the feeling that the mind has disciplined

[88] Ludovic Dugas, *La Timidité: Étude Psychologique Et Morale* 2. Éd. rev ed. Bibliothèque De Philosophie Contemporaine (Paris: F. Alcan, 1921).
[89] The expression taken from the journals of the Swiss philosopher Henri Frédéric Amiel. M Sierra, and G.E Berrios, "Depersonalization: A Conceptual History," *History of Psychiatry* 8 (30)(1997): 213. Spyros Papapetros notes Freud's uses of the German term, *Entfremdungsgefuhl,* (depersonalization or derealization) in describing his experience of the Greek Acropolis. Spyros Papapetros, "Le Corbusier and Freud on the Acropolis: Notes on a Parallel Journey," in *Architects' journeys: building, traveling, thinking* (New York: GSAPP, 2011), 156,165.
[90] Ludovic Dugas, *L'imagination* (London: Forgotten Books, 2022).
[91] Note that the imagination is not just evocative, but inhibitory for Dugas. See Ludovic Dugas, *Le Psittacisme Et La Pensée Symbolique* (Paris: F. Alcan, 1896), *111.*

and bent to its service."[92] Though developed here with reference to the imagination, Dugas finds a similar inhibitory principle in the uses of language; it is here that Dermée finds his most importance resource for rethinking modern lyricism.

Dermée's essays on lyricism most often refer to Dugas' 1898 dissertation on *Psittacisme* (i.e., parrot speech). The study is based on a condition popularized by Flournoy's "From India to Planet Mars," wherein certain patients, often under hypnosis, seemed to miraculously appropriate languages they did not themselves properly comprehend.[93] Consistent with the comparative psychology of his teachers, Dugas argues that this phenomenon is far more pervasive than previously suggested.[94] "We need to widen the meaning of the word psittacism," he writes, since such case studies are simply "a magnification or caricature of a psychological fact" tied to all normal or symbolic functions.[95] Following from his theory of the imagination, Dugas treats linguistic symbols as perceptions (a combination of raw sensation and feeling) that have been previously objectified on a representational plane. Words, images, ideas: Dugas considered how these could all be seen to express varying degrees of reflexivity and abstraction. In Dugas' usage, the symbol refers to the fact that a representation is a cultural ready-made, habituated both by the individual for itself and by the culture at large. All language, in other words, is a congealment of previously defined images and associations that have lost their original affect.

According to Dugas, the symbolic character of language – i.e., its referential function – enables the subject to apprehend the world by dialing down its emotional impact. He writes: "Images are better suited than sensations to express the objects, because they are weakened,

[92] Ibid.
[93] See Sonu Shamdasani, "Encountering Helene,"xi-li.
[94] Giving context for this tendency see discussions of the "Chair of Experimental and Comparative Psychology at the *College du France.* Jacqueline Carroy, Annick Ohayon, et Régine Plas, « La « psychologie » au Collège de France », *Revue philosophique de la France et de l'étranger* 140, no. 2, (2015): 225.
[95] Dugas, *Le Psittacisme*, 4.

discreet sensations."[96] The subject would be exhausted and overwhelmed by the shocks of experience could it not rely upon such representational mnemonics that dim experience to a manageable "humming of the nervous system."[97] To speak in languages that we do fully comprehend is a basic requirement in sustaining the psychological energy required to live. Dugas thus helped to describe a paradox that was central to the psychology of creation as theorized by fin-de-siècle lyricism. He showed how the aesthetic subject, by actively making sense of one's experience in art and literature, meanwhile effected a salutary distancing or depersonalization of that experience. Paradoxically, the purpose of the aesthetic is revealed to be anaesthetic.[98]

Dermée's notion of lyricism thus presents a curious pairing of automatic process with energetic hygiene. In his last article, entitled « *Panlyrisme* », he calls for a new era of collaboration between psychopathology and aesthetics. Aesthetics, he argues, contra Max Nordau (the cultural conservative and author of *Degeneration, 1892*), has much to gain from the psychic mechanisms observed in madness, drug-use, primitivism, and the urban crowd. In all such extremes, Dermée finds an acutely associative logic that expresses our innermost tendencies.[99] "The irrepressible need to write that man possesses in all acritical states (morbid or normal), strongly underlines the role of verbal expression (of literature in the broadest sense) which is the externalization, expulsion, and release of unrealized tendencies and passions that torment us."[100] Here we see Dermée's effort to reinvent Dugas' aesthetic depersonalization through a combination of Bergsonian and Freudian psychology. Dermée draws a direct relationship

[96] Dugas, *Le Psittacisme, 98.*
[97] Dugas, *Le Psittacisme, 102.*
[98] On this dynamic, see Susan Buck Morse "Aesthetics and Anaesthetics: Walter Benjamin's Artwork Essay Reconsidered," October 62(1992): 3; Nina Rosenblatt, "Empathy and Anaesthesia,"79–97.
[99] Every artist," he writes, should "carefully avoid knowing or tasting an art different from his own. This principle of individual hygiene, so difficult to observe by any man of taste and sensitivity, should be magnified as one of the principles of austerity necessary to the creator." Dermée, « Panlyricism », *EN* n° 28, n.p.
[100] Dermée, « Appels de sons: Appels de sens », *EN* n° 5, 556.

between modern lyricism to energy hygiene, at times expressing this link under the logic of Aristotelian *katharsis*. In his article for *Disque Vert*, « Aristote avait raison », he argues that art "purges us of our "condemnable" passions and impulses. . . [enabling] society to maintain itself in spite of all that is antisocial within each of us. The role of poets in a Republic is useful."[101]

With this comment, we come full circle and are in position to appreciate the contradictions informing Dermée's writings on lyricism. Though poetry, Dermée claims "must not have an external and utilitarian purpose," once qualified through a combination of Bergson, Dugas and Freud, we see that poetry for Dermée is precisely functional – both for the individual and for society.[102] Or more exactly, we might say that poetry for Dermée is an answer to the question of how a healthy aesthetic subject lives *within* society: how it uses a common language to stave off fatigue, and how by making this language its own, its purges itself of an excessive corporeal unconscious.

Conclusion

I have argued that one finds in *L'Esprit nouveau* a set of aesthetic models that reinvent Ampère's mid-19th-century technaesthetics. My claim is that poetry is particularly concerned with how literary techniques *act* upon the imagination of others. Moreover, Ampère's combination of spiritual striving and technological advancement seeded the potential for art and poetry to be regarded as experiments on the plane of experience. In Reverdy, we saw these commitments manifest in the construction of new images – communicating with others on an aesthetic plane that superseded the nervous jolts of an otherwise chaotic and contingent experience. Aesthetic

[101] Paul Dermée, « Aristote avait raison », *Le Disque vert*, numéro spécial « Freud » (Paris-Bruxelles, 1924): 178-180.
[102] Paul Dermée, « Decouverte le Lyricim », 34.

hygiene for Reverdy is thus conceived as a dynamic equilibrium, or a low-frequency humming of the nervous system in response to a well-calibrated work. By contrast, in Dermée's uses of Dugas, we see the individual achieve a new "surreality" by transforming automatic association into linguistic form. Aesthetic hygiene for Dermée is conceived less as a matter of construction, and more as a cathartic purging of primal energies that have salutary effects for both author and reader. Between Dermée's surrealism and Reverdy's nascent purism are thus two radically different, though no less hygienically conceived notions of poetry.

Despite these differences in literary technique, we should also appreciate a shared theorization of language as the salutary activation of the aesthetic subject on an externalized, social plane. Jean Starobinsky notes that this logic was an important feature of the attempt to bridge a sociological imaginary with new ways of improving upon the functional well-being of an active willful subject. Amongst the theories put forward in these early decades of the 20th century is an emphasis on language as the principle means by which the normal and healthy subject enters society. According to Starobinksy, this conception is best exemplified by Charles Blondel's 1914 *La Conscience Morbide* – which claimed language to be the active principle necessary to the healthy functioning mind. By contrast, morbidity results from the incapacity to produce a coherent response to the chaos of somatic experience. "The normal mind, according to Blondel, eliminates the idiosyncratically individual, the 'pure psychology' by putting into effect the interpretive tools and concepts provided by the system of collective representations."[103] Though Blondel is never cited by Dermée or Reverdy, I see their conceptions of literary technique as similarly invested in how language both activates and manages the embodied unconscious tendencies of each particular subject. Whereas Dada represented the desire to

[103] Jean Starobinski, "A Short History of Bodily Sensation," *Psychological Medicine* 20 no. 1 (1990): 27.

unleash this particularity, and to find in its polymorphousness a principle of collective dynamism, the authors of *L'Esprit nouveau* propose a variety of strategies by which to mechanically record this dynamism (Epstein), to purify this dynamism through the anonymizing restraints of form (Reverdy), or to find within it a remedial corrective to the exhaustions of modern life (Dermée).

CONCLUSION

What can be gained from returning to the moment of *L'Esprit nouveau*? Or to put the question more bluntly: At a moment which sanctions against the gratuitous rehashing of modern canons, why find a case study in this predominantly white, male, European, cast of characters – here assembled around so dubious an ideal as that of aesthetic purism? Moreover, why revisit such clearly fraught entanglements between aesthetics and psychological hygiene?

In forming an answer to these questions, I am alert to controversies surrounding the Centre Pompidou's 2015 exhibit *Le Corbusier: Mesures de l'homme.*[1] The exhibition coincided with the publication of three books accusing the French academy of inadequately addressing Le Corbusier's political affiliations. The resulting historiography narrows to a simple yes or no question: was Le Corbusier a fascist? While I have insisted, as the expression goes, not to have a dog in that that particular fight, with this evasion comes the risk of providing an unwitting apologetics to a particularly authoritarian chapter in the history of art and architectural thinking. In what follows, then, I try and expand the question from Le Corbusier to the cultural politics of *L'Esprit nouveau* more broadly, and to identify where and how I see it as worthy of critical but also reparative forms of contemporary consideration.[2]

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[1] François Chaslin, *Un Corbusier: Fiction & Cie* (Paris: Seuil, 2015); Xavier de Jarcy, *Le Corbusier, un fascisme français* (Paris: Albin Michel, 2015); Marc Perelman, *Le Corbusier: Une froide vision du monde: Essai* (Paris: Michalon Éditeur, 2015). A reflective summary of the controversy can be found in S. Brott, "The Le Corbusier Scandal, or, was Le Corbusier a Fascist?," *Fascism 6 no*2 (2017): 196-227.

[2]I use the term in the sense used by Sedgewick in her Kleinian distinction between paranoid and reparative processes of reading. Sedgewick writes: "Hope, often a fracturing, even a traumatic thing to experience, is among the energies by which the reparatively positioned reader tries to organize the fragments and part-objects she encounters or creates." Eve Kosofsky Sedgwick, "Paranoid Reading and Reparative Reading; or, You're So Paranoid, You Probably Think This Introduction is About You" in *Novel Gazing: Queer Readings in Fiction* (Durham, NC: Duke University Press, 1997), 24.

If I have dwelled on the scientific and philosophical forebearers of modern psychology, it has been to describe how aesthetic subjectivities were posed within an epistemic middle ground between artistic, scientific, philosophical, and clinical directives. My claim is not that the authors of *L'Esprit nouveau* invented this epistemic middle ground – indeed, scholars such as Thibault, Brain, and Alexander show that it was already a century in the making – but, rather, that the authors of *L'Esprit nouveau* contributed to a post-war moment that pressurized a particularly forceful synthesis of these 19th-and early 20th-century traditions. In my analysis of the journal, I have suggested that these historical pressures are indicated by a variety of concerns expressed within the language of energy hygiene. Central to the dream of a scientific aesthetics is a subject conceived as a crisis of energy. This subject is addressed through a variety of diagnostic, authoritarian, and utopian inflections. By revisiting an expanded notion of the orthopedic, my intention has been to suggest a theoretical framework that can accommodate these differences.

With the orthopedic, I suggest, we reencounter modernism as an acquisition of techniques mutually defined by aesthetic and medical directives. To the degree that I have tried to identify the historical pressures contributing to this integration of traditions, my research has been prompted by Marxist historiography: a reading of Purism as the moment in which aesthetic experience is adapted to a new era of industrial capitalism. For example, Le Corbusier's grounding of aesthetic subjectivity in an "inner sense of truth," or, as Nancy Troy so aptly puts it, his shift in "creative prerogative" from processes of handcraft to those of calibration and selection – espouse a newly managerial intelligence modelled after large-scale production.[3] The son of an artisan, Le Corbusier, at first resistant to the "ineluctable future" of mass production,

[3] Troy, *Modernism and the Decorative Arts in France*. See also Manfredo Tafuri, "Machine et Memoire": The City in the Work of Le Corbusier, trans. Stephen Sartarelli, in *Le Corbusier*, ed. Allan Brooks (Princeton: Princeton University Press, 1987), 207. Rosenblatt cites what Tafuri calls the "metaphysics of technology" in her discussion of the Purist development of the symbolic function of the machine. Rosenblatt, *Photogenic Neuraesthenia*, 139.

quickly metabolizes the Taylorist vision and becomes the quintessential figure to recast the artist as societal engineer.[4] Mary Macleod was amongst the first to distill how these manoeuvres contained both progressive and conservative dimensions. However, it was Nina Rosenblatt who suggested how the machine aesthetic "had as its utopian dimension the transcendence of the productive [labouring] body."[5]

My research is, in many ways, an effort to unpack the density and weight of Rosenblatt's suggestion: to explore how aesthetic practices were co-constituted by a psychological discourse aimed at securing the vitality of the individual – particularly, within a socio-economic organization that is increasingly hostile to it. As evidence of this history, I have tried to locate a pattern of consistency, demonstrating how the journal's messianic calls for a *new* body, with *new* movement habits, *new* modes of perception, *new* sensory amplitudes, were never far removed from the imaginative conjuring of an evolutionarily aged, energetically depleted, de-eroticized subject. Whether in Basch's evoking of the modern "necropolis," or Lalo's polemics against a pervasive "necro-aesthetics," we encounter that same phenomenon famously observed by Walter Benjamin in 19th-century Paris: individuals who everywhere encounter the deadening effects of modern industrial life.[6]

However, whereas Benjamin observed these deadening effects as expressed within modern culture – e.g., drawing a direct line between the poetry of Baudelaire, the factory work which "makes no demands of one's previous skill and experience," and the various amusement rides that trained the modern individual in the art of living off-centre – here we might say that the

[4] Looking to correspondences with William Ritter, Macleod reveals how it was within a year, from 1917-1918 that Le Corbusier made this transition. Macleod, "Architecture or Revolution,"135.
[5] Rosenblatt, *Photogenic Neuraesthenia*, 139.
[6] Against Bergson, Benjamin argues that death is not a universal fact of human existence, but rather historically situated. See Walter Benjamin "On Some Motifs in Baudelaire," 318.

authors of *L'Esprit nouveau* observed this crisis too, and called upon the aesthetic to remediate the vitality of the thinking-feeling body.[7] Borrowing its optimism from the sciences, and refusing both mechanistic and metaphysical dualisms, the authors of *L'Esprit nouveau* attempted to reposition the individual at the centre of its own energy economy.[8]

With Le Corbusier, we saw how this re-centring of the subject – i.e., an armoured nakedness at the center of a turbine shell – presented the centrifugal logic for a new cosmopolitan elite. While scholars have shown how this new figure ranks within a Saint-Simonian model of social hierarchy and is endowed with superiority by the evolutionary racisms of Henri Provensal and Pierre Winter, I have shown that a similarly consequential conceit in Le Corbusier's thinking can be found in the positing of a normative psychology: a training of mind and body which moves progressively towards its own perfection.[9] Modelled on Pierre Janet's hierarchy of syntheses, vitality is cast as an outward expansion: a development of aesthetic sensibilities that double in their contributions to social life. "Beauty's domain is ever expanding," write Le Corbusier and Ozenfant in *Après le Cubisme*.[10] And indeed, in this expansion I suggest we find the central managerial (if not also colonial) logic of their scientific aesthetics.[11]

All this leads to the following question: what is entailed by the scientific expansion of the aesthetic? Here a contrast with a selection of the journal's contributors shows that a similar principle of aesthetic expansiveness can carry vastly different socio-political implications. Recall, for instance, that Charles Henry concludes his two-part lecture by invoking an "infinity"

[7] Ibid., 318.
[8] On the question of monism vs. dualism see Vicovanu, *L'Esprit nouveau*, 120-122.
[9] Rosenblatt, *Photogenic Neuraesthenia*, 135-139.
[10] Ozenfant and Jeanneret, *Après le cubism*, 49.
[11] On the colonial, expansionist principle of vitality, see the helpful genealogy of biopolitical critique in Fabiola López-Durán, *Eugenics in the Garden: Transatlantic Architecture and the Crafting of Modernity* (Austin: University of Texas Press, 2021), 7.

of canons – each of them "obeying" the laws of life as expressed at each moment, by each race, and in the "temperament" of the individual artists. "[B]eauty is an evolutionary thing," he writes. For Henry, rooted in an earlier generation of symbolist thinking, the organic expansion of the aesthetic implies a more fundamental division between individual and collective life. On the one hand, the central economic problems can be solved by a rationally defined, collectivist reorganization of society: "the problem of the progressive life of all people can be summed up thus: produce much, cheaply, and in a very short time."[12] By contrast, the aesthetic represents a salutary compensation for these logical exertions. "I believe," Henry says, "in the future of an art which would be the reverse of any ordinary logical or historical method, precisely because our intellects, exhausted by purely rational efforts, will feel the need to refresh themselves with entirely opposite states of mind."[13] Elsewhere, he likens the hygienic functions of art to a form of "physical and moral hydrotherapy."[14] For Henry, we might say that an expanded aesthetic sphere is the inverse heterogenous compensation to an increasingly homogenous socio-political reality: as society advances towards anarcho-communist organization, the aesthetic opens a zone of psychophysical experimentation and inter-subjective affiliations founded on an expanding "cosmic" sensibility.[15]

Henry's model of aesthetic hygiene is a compensatory one. It shares with the logic of *Art Nouveau* the notion of an aesthetic interiority hygienically designed to compensate for the shock

[12] Jose Argüelles, *Charles Henry*,177-178.
[13]Ibid., 178.
[14]Ibid.
[15] Henry writes: "the extraordinary turmoil of these brains will need for their repose baths of very cosmic universal and elevated moral sentiments, idylls from which all reality and all contingencies will be banished." Ibid., 181. I think here of being amongst a crowd of Londoners who lay below Olafur Eliasson's *Weather Project* (2003) at Tate Modern's Turbine Hall, or more recently, being amongst the Torontonians that were shuffled through a private minute in Yayoi Kusama's *Infinity Mirrored Room* (2018). See: "Yayoi Kusama: Infinity Mirrors," Exhibitions, AGO, accessed Jan 21, 2023, https://ago.ca/exhibitions/kusama; "The Weather Project - 2003," Artwork, Olafur Eliasson, accessed Jan 21, 2023, https://olafureliasson.net/artwork/the-weather-project-2003/.

and exhaustion of modern life.[16] Whereas the medical expertise informing *Art Nouveau* authorized this maintenance within an imaginatively "hypnotic" interior, with Le Corbusier we have seen how the aesthetic subject is forced to let go of this legacy of suggestive individuation. Instead, it is presented with techniques to regain its equilibrium precisely *within* the rational, calculating future that Henry saw it avoiding.

And yet, while Le Corbusier's domestic sphere may have shed its ornamentation, within the *chaise lounge* there lingers, even for Le Corbusier, an aspect of this older compensatory medicine. Now, however, the restoration that it promises takes its remove not from rational collectivist politics but rather from the "petty actions, accidents, sterile chores" that constitute the banality of individual life.[17] "We organize our actions and free ourselves, we think about something – art for example (because it is very comforting)."[18] Notice here how densely Le Corbusier folds a restive, salutary moment in aesthetic contemplation into the re-activation of the individual in its various projects. It is as though even the act of doing nothing must be purified of its links to an involuntary, dreaming, associative unconscious.[19]

The proposition I want to make is this: that between the aesthetics of Charles Henry and Le Corbusier, we encounter an intensification in the techniques of psychological training. In Le Corbusier's actively-passive aesthetic subject, we witness an example of what the philosopher Didier Deleule describes as a development in "productive consumption."[20] This refers to a new psychological ability to consume aesthetic commodities that are necessary to the continued

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[16]See Debora Silverman, "Chapter Five: *Psychologie Nouvelle,*" in *Art Nouveau in Fin-De-Siècle France: Politics, Psychology, and Style*. Studies on the History of Society and Culture, (Berkeley: University of California Press, 1989), 75-106.
[17] Le Corbusier, « *Besoins-tvpes. Meubles-types* », *EN* n°23, n.p.
[18] Ibid.
[19]Such refusals of passivity would, of themselves, make for an interesting topic of study. On the subject masculinity and passivity, see Leo Bersani, "Is the Rectum a Grave?" *October* 43 (1987): 212.
[20] De Guéry François, Didier Deleule, *The Productive Body*. Winchester (UK: Zero Books, 2014),129.

vitality of the individual producer. Deleule argues that modern psychology "in all its techniques of selection and detection, of aptitude development, of conditioning and learning, of preventing or absorbing conflict, of personality testing, etc.," has as its end the maintenance, and indeed improvement, of the living productive body.[21] And again, whereas fin-de-siècle psychology allowed for this maintenance to occur within an imaginatively suggestive or "hypnotic" interior, in *L'Esprit nouveau* we encounter a demand that the salutary functions of the aesthetic imagination are constructed on the shared plane of collective experience: by regaining dynamic equilibrium before a painting by Seurat, by regulating one's movement habits in the opened sun-baths of modern dance, by finding stasis in a depersonalized lyricism. In all these practices – the accompanying technics to an *esthétique vivante* – I suggest we find a kind of modern apotheosis in the effort to regain one's energy hygiene though a radically exteriorized form of modern psychology.

Let us explore a few further examples of this phenomenon. Recall that Victor Basch, like both Henry and Le Corbusier, describes the aesthetic subject as a system of forces activated by the work of art. Unlike Le Corbusier, however, Basch wants to retain the radically individuated character of this experience; and unlike Henry, he does not want to isolate aesthetic experience from the processes of forming social and political consensus. Through the notion of "symbolic sympathy," he argues that the aesthetic occupies an evolutionary middle ground between the body's primordial physiological density and its more advanced associative cognition. In Basch, we encounter a marked divergence between psychological aesthetics as developed in French and German traditions. For whereas in the latter, the project of an individual's "cultivation" is inseparable from the mediations of a national "*volkskultur*," Basch's aesthetics has a more

[21] Ibid.

radically cosmopolitan agenda.[22] For Basch, the function of art is not to create a nation of cultivated individuals; rather, it is to promote the affective enlivening of the human subject within the perilously advanced stages in its cognitive evolution. The "central problem of aesthetics" as he calls it, "consists in maintaining that the people of feelings that accompany all the manifestations of our normal life but that, in the normal state, are suffocated by our intellectual and volitional activity, are freed in the aesthetic state and manifest themselves there in all their infinite richness."[23] In addition to this function of "reconciling" between the world of sensibility and the world of the understanding, the aesthetic for Basch constitutes a plane of experience that is inherently both individual and collective. It is not just that the same aesthetic experiences can be proven statistically to have the same or similar effects but rather that the experiences are themselves the spontaneous expressions of a shared sensibility, or of social life as such. Scholars such as Rosenblatt have credited this socializing of aesthetic experience to a comingling between the sociological sciences of the 1880s and 1890s and the politics of solidarism which, as Rossella Froissart writes, galvanized a "conciliatory and positive vision of industrial modernity" amongst fin-de-siècle Republicans.[24] Significantly here, for Basch, art is neither a compensatory therapy nor a training in a cultural sophistication. It is rather a hygienic re-enlivening of the subject on the plane of its affective sympathies with the surrounding world. The same experiences of art that restore the vitality of the affective body reestablish its

[22] See Rosenblatt, *Photographic Neurasthenia,* xi; For a related question of *Völkpsychologie*, see also Andreas Killen, Berlin Elektropolis: Neurasthenia and Modernity in Germany 1870-1926, (PhD diss., New York University, 2000) 43.
[23] Basch continues: "because they escape, during the contemplation, both from the dull and desolate jail of the concepts, and from the grip of the categorical imperative." Victor Basch, « Le Maître-Problème De L'esthétique. » *Revue Philosophique De La France Et De L'étranger* 92 (1921): 25.
[24] Rosenblatt, "Empathy and Anaesthesia," 83; Froissart, "Socialization of the Beautiful and Valorization of the Useful," 80.

connectedness to the social organism to which it is organically (and not just statistically) connected. Basch's aesthetic is conciliatory.

The journal provides other examples of such a conciliatory aesthetic, though not all share in Basch's cosmopolitanism. For just as the fin-de-siècle politics of solidarism proved to be easily co-opted by a reformist discourse around national "styles" – its very organicism, suggests Froissart, allowing the "artist-decorator" to emerge "as an actor engaged in a form of social welfare" – some of *L'Esprit nouveau's* authors similarly forfeit the internationalism of their science for the advancement of racial sensibility or national style.[25] We encountered this tendency in the delineation of a "French constructive spirit," and in the particular contributions of Pierre Winter, who writes: "One does not need to be a great scholar to realize that French mechanics, as a construction and as a realization, is really very different from foreign constructions: an organic feeling that makes these pieces beautiful objects to see, a care of manufacturing that allows one to notice that the old technical love of the craftsman is magnified in the collective work of the modern French factory."[26] Note in this comment how the moment of aesthetic appreciation (an "organic feeling") serves to reinforce one's participation in a French social and political order. Leora Ausslander has chronicled this politicization of the aesthetic sphere, arguing that its origins are to be found in the historian Jules Michelet, who saw how the everyday spectacle of commodity capitalism reinforced an unconscious participation in the life of the Republic.[27] Crucially then, I believe there is an important fault line to be observed here

[25] Ibid.
[26] Pierre Winter, « Sports » n° 11-12, 1366.
[27] Auslander writes "As early as 1846 Jules Michelet articulated this position in *Le peuple*, arguing first of all for the unity of France: 'It is at the moment when France has suppressed all the divergent Frances that lie within her breast that she has given her high and original revelation.' This unity was largely produced in the everyday and by means of commodities: "In this great body of a nation .. . [a] certain idea enters through the eyes (fashion, shops, museums , etc.), another through conversation, through the language that is the grand depository of common progress. All receive the thinking of all, perhaps without analyzing it, but they nonetheless receive it." Ausslander, *Taste and Power*, 6.

between Basch and Winter's socially conciliatory aesthetics. For whereas Basch too wants to situate a common aesthetic sensibility within the fabric of everyday life (recall that he famously attacked the German architect Peter Behrens for ignoring the "speed of commerce and exchange") this is an experience which is never circumscribed by the formation of a French national identity. Basch's aesthetic subject, while conciliatory, is thoroughly cosmopolitan.

Finally, then, while the philosophical basis for a progressive aesthetic solidarism may be provided for by Basch, I believe its cosmopolitan futures are most convincingly expressed in the writings of the filmmaker Jean Epstein. In his critique of Freudianism, we have already encountered how shrewdly Epstein analyzed the psychological transformations of modern industrial life. A radical materialist, Epstein observed the increasingly cerebral nature of human labour as the primary consequence of advanced production: In the "intervals of muscular inactivity, what else does the worker have to do but think about himself, about his life, about how to improve it."[28] From the prevalence of this social fact, there emerges for Epstein a proliferation of new discourses aimed at expanding the complex "inner kingdom" of human psychology. Epstein writes:

> To the domain of acts, of apparent gestures, of objects and things external to ourselves, is opposed, arbitrarily and to satisfy our mania of "here begins" and "there ends," the domain of thought, of imagination, of coenesthesia, ourselves finally, our brain, all that circumscribes and closes the tight and pale limit of our skin. [29]

Though psychology assumes the guise of positive science, Epstein counters that it is a modern myth, everyday propagated by new techniques of observation. The most challenging and contemporary aspect of Epstein's thinking is the way he locates aesthetic practices *within* the

[28]Note that almost exactly the same phrase is used by Winter (The new man learns to "take care of himself a little, to know his body, [and] to be interested in his own performance and that of his race."), but with completely different political intonations. Pierre Winter, « Le corps nouveau », n° 15, 1756.
[29] Epstein, « *Le phénomène littéraire* », *EN* N° 8, 860.

development of these technical tools of perception. The arts do not represent an autonomous field of pursuit but are categorized *amongst* the changing "machinery of civilization."[30] He writes:

> The machinery of civilization, the innumerable instruments that clutter up laboratories, factories, hospitals, photographers' and electricians' workshops, the engineer's table, the architect's desk, the aviator's seat, the movie theatre, the optician's window and even the carpenter's pocket, allow man an infinite variety of angles of observation. . . . And all these instruments, telephone, microscope, magnifying glass, cinema, lens, microphone, gramophone, car-mobile, kodak, plane, are not simple inert objects. At certain moments these machines come to be part of us and to filter for us the world as the screen filters the emanations of the radium.[31]

Here Epstein identifies the aesthetic amongst the tools which help to "develop a bigger surface of contact with the world."[32] In this thought, we encounter what I consider to be a radical interpenetration of aesthetic and psychological domains. For unlike Basch, whose cosmopolitanism begins with modern alienation and exhaustion and turns towards the restorative potential of a psycho-socially conciliatory aesthetic sphere, with Epstein we both begin and end within a psycho-social experience that is already profoundly mediated by the aesthetic. Art is not something one turns towards in order to rectify a situation; rather, it is acknowledged as a subset of the already countless and subtle "technical" mediations that filter our experience.

Epstein thus collapses the aesthetic into the larger field of psychological technics, which everyday expands like a "descriptive geometry, with infinite planes of projection."[33] Ironically, the same technical advances which allow the domain of individual "interiority" to expand also produce the conditions of speed and global proximity which allow for greater "ideological

[30] Ibid., 859
[31] Ibid.
[32] Ibid.

contagion" from one individual to the next.[34] "The legendary geography of the old books is dead," Epstein writes.[35] The cosmopolitan future is thus one in which the various "logics of expression [i.e., all technical mediations of experience] influence and compete, support each other, fight, [and] modify each other."[36] The resulting paradox is an aesthetic subject that imagines itself as an expansively complex interior, even while conditions serve to multiply its porosity towards a quickening and more proximate relationship to those that surround it. To me, this represents an uncanny foretelling of what it means to be alive in the contemporary moment.

Finally, what are the liberatory dynamics to be gleaned from Epstein's collapsing of aesthetic and psychological technics? And what are the political horizons of *L'Esprit nouveau*, as seen from the vantage of such a radically immanent perspective? Here I want to conclude by looking at the observations made of Charlie Chaplin's figure of *Charlot* (the tramp) – in whom both Epstein and the art historian Elie Fauré locate the vanguard of modern artistic practice.

Epstein attributes Chaplin's novelty to the mental speed and accompanying subtlety enabled by the filmic medium. With Fauré, however, even the newness of film does not adequately address the novelty in this work. He writes:

> A new art, which has nothing to do, in any case, with the theater, that perhaps one was even wrong, that I undoubtedly was wrong myself to attach to the plastic. A new art, still inorganic, and which will probably find its own rhythm only when the society will have found its own. Why define it? It is embryonic. A new art creates its organs.[37]

Note here how, akin to Epstein, Fauré conceives of art as a technical extension of the human. "It is the expressive instrument that one did not suspect."[38] And though it is tempting to read this

[34] Ibid., 857.
[35] Ibid.
[36] Ibid.
[37] Elie Fauré, « Charlot », *EN* N° 6, 657.
[38] Ibid., 658.

comment through its prosthetic metaphor, I think that the more complex medicalized aspiration that it points towards is an orthopedic one. For in Chaplin's *Charlot,* Fauré observes the contradictory directives of modern psychology: an individual whose loss of footing is attributed to a "destroyed society," and who "objectifies," Fauré writes, a "common inability to live."[39] And yet, our sympathy for *Charlot* would be incomplete, Fauré suggests, were his pessimism not accompanied by an equally "incessant effort of imagination" and a reliably "organizing will."[40] In his final analysis, Fauré's *Charlot* is the modern individual divided in costume as well as gait:

> Language, with Charlie, is no longer conventional: the word is suppressed, and the symbol and the sound itself. He dances with his feet. Even so, they are shod with improbable croquenots. Each of these feet, so painful and so burlesque, represents for us one of the poles of the spirit. One is called knowledge, and the other desire. And it is by leaping from one to the other that he seeks this center of gravity of the soul that we never find but to lose it immediately. This search is all his art, as it is the art of all high thinkers, of all high artists and, in the last analysis, of all those who, even without expressing themselves, want to live profoundly. If the dance is so close to God, I imagine, it is because it symbolizes for us in the most direct gesture and the most invincible instinct the vertigo of the thought which can realize its balance only in the formidable condition to turn without slackening around the unstable point which it inhabits, and to pursue the rest in the drama of the movement. [41]

This is a remarkable formulation, and one that relies upon many of the figures encountered in this dissertation: an epistemic dualism between qualitative knowledge and quantitative desire; gesture as a unit of expression, the individual finding its equilibrium within a matrix of gravity and time. Above all, however, what I see in this gesture is a subject that has learned to move seamlessly between medicalized regimes of recovery and optimization. More than *compensatory* and more than *conciliatory,* the logic of expression here finds solidarity in resignation and liberatory promise in an already-thoroughly disciplined body. Though fraught and faltering, in

[39] Ibid., 664
[40] Ibid., 663.
[41] Ibid., 666.

L'Esprit nouveau one finds a compendium to this tired yet relentlessly futural, amphibian grammar.

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