The History of Futurism

The Precursors, Protagonists, and Legacies

Edited by
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CHAPTER SIX

The Statistical Sublime

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I begin with (anything but) a coincidence. On the one side: Friedrich Schlegel's 1797 *Fragmente zur Literatur und Poesie* with its characteristic notations of everything from the absolute novel to Goethe's essence to *Das poetische Ideal*. On the other: Alfo Berretta's 1916 words-in-freedom *Autoequazione* where the self is equated with the square root of, more or less, the square root of the 1 multiplied by the fraction formed by lei over lei to the second power, equated with K squared—K being the standard variable for kinetic energy in physics—plus K times ten plus lei, all of which yields a grand total of zero (see figure 6.1).

One needn't be a mathematical genius to recognize that Beretta's self-equation makes sense only in a domain where mathematical notation has been invaded and invalidated by poetic play. Berretta's self-identical self is a logical hall of mirrors. The square root of the square root of an 1 whose kinetic energy is multiplied thanks to an erotic triangle involving a him on the bottom and a her on top equivalent to zero . . . is zero. Even if the series of nested square roots were to extend to infinity, the outcome would be the same: the square root of zero is zero. Not zero, more or less, but exactly zero.

The case of Schlegel is the richer of the two and summons up the dream, anticipated in the universal language schemes of the prior century but exceeded in ways that point forward to Futurism, of a language that transcends or subtends time and space. Abbreviations abound in Schlegel's *Fragmente* and are typically Greek, as per the notational conventions of period science. They are flanked by eccentric usages of +, −, the fraction 1/o, and the broken
AUTOEQUAZIONE

\[ V^+ \text{ Vio } \text{ lei} \leq 10 + \text{ lei} = 0 \]

\[ s. 11 [\text{p} \text{u} \text{d} \text{e} \text{c} \text{a} \text{l} \text{a} \text{r} \text{a} \text{t} \text{i} \text{e} \text{t} \text{i} \text{c} \text{a} \text{n} \text{a} \text{r} \text{i} \text{a} \text{n} \text{a} \text{t} \text{i} \text{t} \text{a} \text{t} \text{i} - \text{d} \text{a} \text{m} \text{i} \text{a} \text{t} \text{i} \text{s} \text{c} \text{h} \text{a} \text{t} \text{i} \text{a} \text{n} \text{i} \text{e} \text{r} \text{a} \text{t} \text{i} \text{c} \text{i} \text{n} \text{a} \text{t} \text{i} \text{t} \text{i} \text{c} \text{a} \text{n} \text{a} \text{r} \text{i} \text{a} \text{n} \text{i} \text{t} \text{i} \text{t} \text{i}]
\]

\[ \text{F} \text{S} \text{M} \]

sind die 'poetisch' [en] Iden. \( \langle \text{D} \text{a} \text{s} \text{ p} \text{o} \text{e} \text{t} \text{i} \text{s} \text{c} \text{h} \text{e} \text{t} \rangle \text{ Ideal} = \frac{1}{\sqrt{\text{FSM}}} \)

Gott.

Figure 6.1. Alí Barreto, Autoequazione, Words-in-Freedom Poem 1916.


fraction \( /o \) standing respectively for positive, negative, infinite, and absolute, as well as by variants such as \( /\alpha /o = \text{absolute Drama} \) and \( /\Pi /o = \text{absolute Poetry} \). The square root of the self makes a solo appearance in the Fragmente as the marker of essence: “The Poem is a higher and deeper self that detaches itself from the self = \( \sqrt{1} \).” And then there is the celebrated equation from Fragment 734 where Schlegel synthesizes a broader argument regarding the novel as a poetic ideal. Bred from the coningling of absolute fantasy (\( F/o \)), sentimentality (\( S/o \)), and mimicry (\( M/o \)), the novel alone can achieve totality and, as such, alone can express God. Here metaphysics bursts the dam of the mathematically sensical, for to divide by zero is not to divide at all.

However great the distance in time and spirit separating Schlegel’s romantic idealism from Barreto’s futurist mithmaking, both appropriations of mathematical logic are animated by a belief that mathematics occupies a privileged place within the hierarchy of creations of the human mind. In the words of Oswald Spengler, “mathematics . . . is a science of the most rigorous kind, like logic but more comprehensive and fuller; it is a true art, along with sculpture and music, needing the guidance of inspiration and developing under great conventions of form; it is, lastly, a metaphysic of the highest rank, as Plato and above all Leibniz show us.” And it is the privileged status of mathematics that drives both Schlegel and Barreto to unbalance what Kant had dubbed the mathematical sublime: in other words, to seek to exceed the bounds of reason by means of a playful misuse of reason’s most powerful tool—the logic of numbers.

In the Critique of Judgment, the mathematical sublime is that experience of overwhelming vastness caused by finite objects that appear so vertiginously large as to defy human abilities to imaginatively comprehend them: a form of displeasure that gives rise to a compensatory pleasure when reason reasserts itself over and against the imagination’s feverish workings by recognizing the transcendental character of supersensible laws. Kant’s examples are spatial (pyramids and mountains). But what if the literal realm of numbers were itself to become the source of vertigo and shock? And what if, rather than prompting the return of reason, this numerical vertigo were to breed ever-renewable dislocations between reason and imagination, logic and sensation, seriousness and play? Such is the domain that I’d like to examine here under the title of the statistical sublime. The enumeration of assemblies of statistical persons, data arrays cut and pasted into words-in-freedom tableaux, gargantuan inventories, chains of magic or random numbers and their prismatic interrelations, notational systems that compress the finite but seemingly infinite into nonsensical equations: this is the quantitative terrain mined by Futurism and transmitted as a legacy to subsequent avant-gardes that I will be surveying here.

Numbers have, of course, always been integral to another higher language for the expression of thought, namely poetry, from the quantitative metrics of ancient verse to Dante’s definition of poetry as numeri regolati and beyond. Likewise, it goes without saying that golden and other ideal ratios have underwritten compositional norms in architecture, music, and the visual arts since remote antiquity. Yet it is only in the twentieth century that numbers and mathematical notation stride out onto the catwalk of cultural communication whether to star in on-stage recitations of random sequences (Ball’s Sconcertazione di stati d’animo), to perform as typographical characters (Canguillo’s Alfabeto a sorpresa; the ciphers in El Lisitsky’s children’s books), or to explore new modes of expressivity (Khlebnikov), reference (Marinetti, Soffici), and hyperbole (Mayakovsky, Marinetti). Global Futurism plays a decisive role in this shift, claiming from the outset that it will sing the statistical battlefields of modern war, the city’s number-studded landscapes, and a world of human multitudes navigating a sea of that newest product of the contemporary social sciences: statistics regarding demographics, production, consumption, and mobility. And these worlds of number are closely allied with and indeed animated by, on the one side, mathematics as associated with contemporary technics and, on the other, statistical hype of the sort extending from commercial advertising to political propaganda.
mathematics rennotated = what futurism does with notational conventions borrowed from mathematics

- hyperbolic math = large integers as intensifiers and persuaders
- inventoring sensations = fictions of cataloging and itemization
- chordal singularities = synecdoces of number or how finite data sets are telescoped into seemingly infinite data arrays and vice versa
- magic formulae = numbers as expressions of the higher, lower, primordial or absolute.

Mathematics Rennotated

Marinetti's attitude towards mathematical notation evolves during the movement's initial years. It debuts with paens to semiotic economy as, for instance, in his response to objections to the Technical Manifesto of Futurist Literature where "the abstract aridity of mathematical signs . . . used to render quantitative relations" avers "the dangerous mania for wasting time in all the cunnings of the sentence, in the minute labors of the mosaic maker, the jeweler, or the shoeshine boy." Here, telegraphic concision prevails over all other aims much as in subsequent experiments with compact messaging. The futurist leader was evangelical on the subject:

In letters and postcards (best to use the latter because they impose brevity and synthesis), I advise you to make frequent use of numerical (+ − × =) notations of feelings qua sensations. Usefulness of writing in words-in-freedom to all friends. Spread the word. Address the problem that traditional letters have become ridiculous.

By the time of the Destruction of Syntax manifesto, the emphasis has shifted from texting to the regulation of stylistic speed. But the true turning point comes one year later, in 1914, with the publication of the Geometrical and Mechanical Splendor manifesto in which considerations of expression, not just synthesis, inform an overall theorization of the notion of "numerical sensibility." Marinetti writes:

I create true theorems or lyrical equations, introducing numbers which I've intuitively chosen and placed within the very center of a word; with a certain quantity of + − × +, I can give the thicknesses, the mass, the volumes of things which words otherwise have to express. The arrangement + − + + + + ×, for example, serves to render the changes and accelerations in the speed of an automobile. The arrangement + + + + + serves to render the clustering of equal sensations.

Here Futurism's dace is fully aligned with the thought of Spengler for whom, "in the last analysis, the number language of mathematics and the grammar
of a tongue are structurally alike.” So just as the futurist revolution in poetic language has freed the word from the constraints of syntax, punctuation, and typographical predictability, now it will carry out an emancipation of number from logic, thereby giving rise to verbal-mathematical hybrids—the theorems and lyrical equations—and to new use scenarios for mathematical signs. The result is that notation will still retain some familiar semantic attributes—the + sign = addition or increase; the − sign = subtraction or decrease—but deviant ones arise as well: “the × sign,” for instance, will be used “to indicate interrogative pauses of thought.” More importantly, no longer limited to coupling numbers, mathematical signs can now be shaped into free-floating, atmospheric clusters that insinuate a manifold of other visual-verbal elements, much like verbs in the infinitive simultaneously interconnect multiple subjects and predicates.

One example will have to stand in for an array of poetic and pictorial experiments with hybrid notational systems extending from the 1910s into the late 1930s: Marinetti’s montagne + vallate + strade × Joffre, first published in 1915 but later included in the 1919 Les mots en liberté futuriste under the alternate title Après la Marne, Joffre visita le front en auto (see figure 6.3).

Here in the bottom left hand corner, the square root of the noun Prussiens—equated with war noises accompanied by strings of sensations, interrogative pauses, and equivalencies, all said to equal zero—serves as the springboard for a sequence of integral sign S’s that string together an entire typographical tableau. The integral sign S, devised by Leibniz, is the standard sign for summation and here the summations form a spiral roadway that leads the reader’s eye through a circuit of polyvalent M’s = montagne = mon ami (Male) and ma petite (Female) = mort aux Boches, with other letters similarly multiple in their declensions: V = vallate = victoire = vive la France = verbalisation = vitesse = vire volant. Criss-crossing the circuit are figures composed of +, −, x, and = signs, each shaping a local set of meanings. The circuit rises, rotates to the right, and then falls, in keeping the physical principles alluded to by the ascending lightness (léger) and descending heaviness (lourd) signs inserted into the top right corner.

The cluster splitting BEL-LE, alternately assignable to Belle France or Ma petite, for example, suggests a block of affirmative sensations haunted by a minor doubt. Likewise, the vertical lines of plus signs plunging down through Mon Ami and flanked by a flock of swallow-like curly brackets (braces) suggest affirmation and acceleration towards Maaa AApetite. But as one traverses Maaa AApetite following the line of signs running diagonally between the upper right hand M and the lower MN, the driver’s momentum oscillates between accelerations and decelerations. Repeated × signs mark pauses in thought as victory nears so as to mark the slowness of Joffre’s reconquest of la belle France at the Battle of the Marne.

The bracketed zone in the lower right hand corner serves as a synoptic table with respect to the composition as a whole, with fragments of road noise running through cyclical variations (angolo angoli angolò angolò), all summed up in a final refrain of ranum viar viar viar, with its clear allusions to a semantic node conjoining themes of virility (vir), speed (vite), steering (volant), curve (virage), and roadway (via).9

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Figure 6.3. Filippo Tommaso Marinetti’s Montagne + vallate + strade × Joffre, first published in 1915 but later included in Les mots en liberté futuriste (Milan: Edizioni Futuriste di Poesia, 1919), under the alternate title Après la Marne, Joffre visita le front en auto.
Hyperbolic Math

To set mathematical notation free from the constraints of logical syntax is also to cut numbers free from representational obligations and limits. It is to open numbers up to the sorts of operations of quotation, decontextualization, and contamination that are routinely carried out in the visual and verbal realms by the early avant-gardes. The most familiar version of this procedure involves the collage-based practice of inserting product, newsprint, or place numbers into works, much as in Boccioni's 1913 *Scarpa di società + orina* a walk down a London street is rendered as a row of building numbers gradually diminishing in scale (see figure 6.4).

But more telling as regards the effort to wed signs of precision and finitude to intimations of the infinite and absolute that I am here referring to as the statistical sublime, are four other rhetorics of number and it is to these that I would now like to turn:

- the additive use of zeros
- recourse to arithmetic and geometric series
- pseudo-inventories
- the cutting and pasting of apparently boundless data arrays.

The additive use of zeros as a form of statistical hyperbole is a defining feature of the futurist engagement with numbers from the time of Marinetti's first words-in-freedom poem, *Battaglia Peso + odore*, where the scale and scope of the theater of battle is conveyed by loosely hinged equations involving three thousand flags, two thousand arms, twenty thousand feet, ten thousand eyes, four thousand meters/battalions/boilers, and so on and so forth. As in subsequent instances, the figure stakes out a claim to precision even as it drops implicit or even explicit hints that the sequence of zeros could be infinitely prolonged. Little does it matter whether the exact number is sixty thousand, one million, 150 million, or an infinitiesmally small fraction: the zero functions as an intensifier and persuader, as well as a marker of overwhelming scale. It is an instrument governed not by a referent but by the intuition of a poet/artist endowed with a numerical sensibility and improvisatory skills.

An important variant on the hyperbolic zero is the no less hyperbolic use of arithmetic and geometric progressions: crescendos and diminuendos, composed of potentially infinite integer sequences, that enact a principle that is perhaps best described as numerical dynamism. Rather than functioning as stable markers that point to stable referents, futurist numbers are live feeds. They are generative and endowed with a natural tendency to cascade: to extend themselves in the mode of contraction or, more typically, expansion.

**Inventorying Sensations**

Mock inventories proliferate within the futurist fold, repurposing accounting conventions, statistical tools, and templates devised by state bureaucracies for the inventoring of manifold sensations, perceptions, and phenomena.

In the case of Guglielmo Jannelli's *Uffici del d'ispezione*, an actual army inspection form is reworked into a words-in-freedom field report filed from the WWI front, with the full apparatus of army titles, footnotes, form numbers, and passwords left intact, even as the blanks are filled in with lyrical
Jannelli's horizontal response is a proper 12:30 at night, but their vertical accompaniment abandons external description for something at once more elusive and allusive: *surprise visit reciprocal overheard algebraic painted telemetric frozen.* In the left hand column, a nonsensical equation describes the condition of the guard station as the inspector encountered it upon his arrival: heat absorbed by stone walls + weight of sleeping howitzers = 102 tons, x the weight of (30.6) × 216,945 sleeping grenades = 38906 kilos. The patrol’s field battery, in turn, weighs in at a nimble 752 grams of red lead. In short, the

**Ufficiare d’*\^i* \(\searrow\)^ \(\searrow\)\**

_**PAROLE IN LIBERTÀ**_

**Presidio di \(\{\) X\**

**RAPPORTO sull’ispezione fatta alle guardie sottolineate.

**Forma di riconoscimento:** Osservare - Alfredo

<table>
<thead>
<tr>
<th>Guardia</th>
<th>PESANTO DEL CALIBRE</th>
<th>PELO DEL BARBA</th>
<th>PELO DELLE ORE</th>
<th>PESO DELLE GALLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table showing the weight and condition of various items.

*Note:* The text is in Italian and contains a mix of historical and technical information.

**Contraffabbiando di guerra**

*Rotterdam*

Aggregazione consistente di 2 trolley tramways militari carrellati posti sotto 2 aile della nave davanti alla banchina del porto. Il peso totale del veicolo è di 22 tonnellate. Inoltre, la nave è dotata di 2 cannoni posti sul ponte superiore, che possono essere utilizzati per la difesa del porto. La nave è dotata di 2 raffreddatori per tenere la temperatura della stiva alla norma.

**Ganglio e Cella**

Otti: 1000 Kg

*Note:* The text is in Italian and contains a mix of historical and technical information.

**Figure 6.6.** Contraffabbiando di guerra section of Filippo Tommaso Marinetti, Zang Tumb Tumb (Milan: Edizioni Futuriste di Poesia, 1914).
The action unfolds like a telegram divided into morse code letter sequences followed by stops. Suspended between two stops, as if an external document collaged into the telegram, is a five page cargo manifest listing the quantities of raw materials taken on board. The left column lists the quantities by weight; the right column “completes” the manifest, freighting the inventory with information belonging to wildly diverse orders of description from the molecular to the cosmological. 1981 kilos of oil and petroleum destined for the Balkan front are thus described by two pioneering transalpine flights: “the ideal of weightless flight // abolition of distances // Chavez Bielovuc // opening of elegant boudoirs in Alpine valleys etc.” 885 kilos of tea are glossed as “chit chats of all the world’s five o’clock teas // religious Anglo-Saxon breaks from work // the disease of literaturitis // cafés in Sofia // diplomatic nuances // flashes of will power in the Russian fog etc.” The list goes on to inventory another half dozen items with each entry ending in et caetera. The implication is clear: even a simple quantitative itemization of this kind has embedded within it a web of potential connections, associations, and data sets so vast, unstable, and complex that it defies standardized modes of accounting. The chorus of et caeterae celebrates the poet’s emancipation from any and all concepts of enumeration that would chain statistics to the analysis and description of stable and finite phenomena.

Choral Singularities

Foremost among the futurist strategies for recontextualizing and recoding number sets is a practice that was already prefigured in montagne + vallate + strade × joffre: the insertion of fragments of numerical fields into typographical or visual compositions. The technique reaches maturity in one of Les Mois en liberté futuristes’s typographical high points: Une Assemblée tumultueuse, a composition subtitled sensibilité numérique (see figure 6.7).

Here the assembly consists in a cut-and-paste assemblage that evokes a mass rally dated 1918 in the upper right hand corner: the year of the end of World War I and of the beginning of the postwar uprising against the peace of Versailles. That the rally’s tumult ticks to the standardized rhythms of industrial era clocks is indicated by the presence of dials on the upper right and by a drummer in the lower left. That it enfolds the poet himself can be ascertained by piecing together zig-zagging fragments of signage: ma anch’io del cento per 100 (“me too, I’m in 100 percent”).

These details do little more than confirm what the overall composition communicates by pitting numbers against numbers, cutouts against cutouts, lists against lists. Namely, that the war is never really over. The extended

Figure 6.7. Filippo Tommaso Marinetti, “Une Assemblée tumultueuse,” from Les mois en liberté futuristes (Milan: Edizioni Futuriste di Poesia, 1919).
which a "sea of phantoms" made up of irrational numbers leads the speaker to declare himself the square root of a minus individual and then to call upon "people to find the square roots of themselves and of minus-individuals."

In his bold theoretical writings with their mathematized theories of word creation, futurian conceptions of history, tables of destiny, and trigonometric laws, Khlebnikov even inserts a mathematical theorem qua self-portrait:

The equations of the soul: I was born on October 28, 1885 + 3° + 3° = November 3, 1921; at the Red Star in Baku I predicted the Soviet Government, December 17, 1920 = 2 × 3° − 317; I was elected a President of Planet Earth on 3° + 3° − 3° − 48 = December 20, 1915 (from birth) or 2 × 3° − 3° − 48. On the day of the battle of Tsushima I conceived of the idea of overthrowing the state by means of an idea; on the day of the surrender of Przemyśl I entered the domain of chemistry.13

Though eccentric in some respects, Khlebnikov remains close to the futurist mainstream. Indeed, when compared with Marinetti's late embrace of a pataphysical mathematics, carried out in collaboration with the mathematician and student of both quantum mechanics and diffusion patterns of infectious diseases, Marcello Puma, a mathematics "hostile to symmetry, entirely launched toward the discontinuous and exceptional, that invites each person make his own subjective calculus of probabilities," Khlebnikov's efforts to determine numerical patterns of predictive value might seem almost positivistic.14

In short, emancipated from humdrum tasks of applied mathematics, suspended in an interstitial realm between metaphysics and interiority/intuition/individual sensibility, between imagination and play, numbers find themselves free to resume some of their traditional speculative functions, whether symbolic, philosophical, and/or magical. The spectrum of such functions is wide within the futurist fold. From Marinetti's superstitious devotion to the number eleven, to Carrà's mediumistic words-in-freedom divagations, to the psychism of Settimelli, Ginna, and Corra founded on their conviction that "art is a cerebral secretion that can be measured with precision," to Giacomo Balla's and Benedetta Marinetti's flirtations, respectively, with theosophy and spiritism, qualitative math always trumps the merely quantitative. Hence in Balla's Numeri immannori, the lone survivor of a number of studies of numerical sequences, a Fibonacci sequence is interrupted by the intrusion of the number 4 (see figure 6.9).

Personified much like Khlebnikov's inventor-integers, the four is attracted to the five, a prime number, literally "kissing" it—opposites attract—even as
it appears aligned with a far closer numerical peer, the 8, so as to imply the existence of an alternate arithmetic sequence (4, 8, 16, 32 …) extending beyond the picture plane to the left and to the right. The tension between the two poles of attraction pulls the 5 out of alignment and skews the entire spatial grid. Benedetta’s Il grande X is, in a sense, more simple: it depicts a quite literal east-west hyperbola whose force pulls the edges of the painting’s frame inward towards the center (C). But in so doing, it renders visible something that, mathematically speaking, can only occur in infinity: the two parabolas kiss right at the point where a radio tower broadcasts mysterious cosmic vibrations.

No more ambitious nor symptomatic compendium of these and other futurist stagings of number and notation exists than Paolo Buzzi’s L’ellisse e la spirale and with this extravagant film + parole in libertà I conclude (see figure 6.10).

Buzzi’s novel recounts the high symbolist saga of Naxar, the orphic composer who, abdicating a freshly inherited imperial throne, escapes high into the azure in an aircraft. The sky in question is none other than the Mallarméan aqar where Naxar undergoes a process of radical rarefaction. The tale of his transformation into an immaterial being is divided into three sections of
twelve chapters each. The first section is framed by subtitles that provide altitudes; the second by subtitles in the form of equations derived from calculus, physics, and chemistry; the third by subtitles bearing astrophysical locations. Buzzi dresses up everything in L'ellisse e la spirale in garish mathematical garb (see figure 6.11).

![Figure 6.11. Twelve examples of the pseudo-equations that accompany titles from Paolo Buzzi, L'ellisse e la spirale—Film + Parole in libertà (Milan: Edizioni Futurist di Poesia, 1915).](image)

But to what end? Do the trappings of exactitude shape the novel's depths or hover instead like vaporous clouds?

Some examples: Section One announces itself as made up of 3533 meters and, indeed, chapters 1–12 are accompanied by subtitles that indicate altitudes which, added together, come out to 4057 or 3533 + 524: 524 being the altitude assigned to chapter 7, La flotta aerea. The numerical coincidence seems deliberate, but leaves no trace within the narrative itself.

Then there is the question of the section divisions, marked by pages on which a single equation appears in isolation. Section Two thus opens with a two-part equation, sensical in part. Its left side will recur in the section's first chapter (ch. 13) I motori della polizia, and is the quadratic formula, here graphable as a parabola that meets the x axis in one of two possible ways. The right side is a mangled version of the correctly noted formula that appears in the last chapter of the second section (ch. 24) La cavalcata nazionale, describing the relationship between two circles A and R. A nonsensical plus sign joins them together. The equation is meaningful to the degree that it enframes all of section two, even if it does so with a typographical inversion on the far right that inadvertently repeats the “error” deliberately committed by Schlegel, Berretta, and Marinetti: namely, division by zero.

Section Three begins with another full page equation: this one equating delta—a standard variable for height above the horizon line—with a set of degrees, minutes, and seconds, followed by a second figure—a celestial location, or so it would appear, close to that of the Big Dipper (at a 55 degree declination). Other celestial addresses follow, some intelligible, most not.

Amidst these external framing devices, promiscuous crossbreedings of the mathematically sensible and nonsensical proliferate, setting off sometimes dazzling, sometimes distracting sparks. Real math makes a cameo appearance: the law of tangents, iterated derivatives, and calculations of angular momentum. But always in the company of typographical inversions, notational errors, interventions that seem to gleefully shred the rules of logic even as they set out to mimic them. The novel ends with a triumphal sequence of nineteen words-in-free tables, the last of which is a sound bit of geometry: a classic r = theta logarithmic spiral, with theta standing for the plane angle that determines the tightness with which a spiral is wound (see figure 6.12).

In summation, Buzzi's manual of futurist mathematics lays bare at once the richness and the vacuity of a world of unencumbered experimentalism—Futurism's own distinctive world—spiraling outward towards the wholesale embrace of irrationality and spiraling inward toward acritical faith in the status of the artist as demigur of the era of industry.
Figure 6.12.  Final spiral from Paolo Buzzi, L'ellisse e la spirale—Film + Parole in libertà (Milan: Edizioni Futuriste di Poesia, 1915), 345.

Notes

1. A sincere thanks to Daniel Kane, Alejandro Perdomo, and Peter Galison for help in deciphering Buzzi’s mathematics are due; I would also like to thank Renata Piccinetti for her expert help in navigating the Buzzi archive in Milan.

2. Alfio Berretta’s (1897–1977) futurist phase was limited to the years of WWI. He was the founding editor of the review La Scalata, one of the few direct bridges between Futurism and Dada. He later went on to become a highly successful journalist and author of romance novels.


5. Parke's artificial infinite seems closely related.

6. “The feeling of the sublime is, therefore, at once a feeling of displeasure, arising from the inadequacy of imagination in the aesthetic estimation of magnitude to attain to its estimation by reason, and simultaneously awakened pleasure, arising from this very judgment of the inadequacy of the greatest faculty of sense being in accord with the ideas of reason, so far as the effort to attain to these is for us a law. It is, in other words, for us a law (of reason), which goes to make us what we are, that we should esteem as small in comparison with ideas of reason everything which for us is great in nature as an object of sense; and that which makes us alive to the feeling of this supersensible side of our being harmonizes with that law.” Kant, Critique of Judgment, part I, sect. 1, bk. 1, p. 2 (SS. 27).


8. Spengler, The Decline of the West, 57.

9. It is worth noting that this example was cited by Russolo in his The Art of Noise as an example of “the great efficacy and intensity of expression attained through the use of consonants.”

10. A case in point is Paolo Buzzi’s posthumously published Conflagrazione, epopea panlibera (Florence: II Fauno, 1963), whose frequent recourse to war statistics are all built upon powers of ten.


14. The publication history of the manifesto is complex. The final version was published in Autori e Scrittori 6.6 (June 1941) and bears the full title of “Calcolo
poetiche delle battaglie—La matematica futurista immaginativa qualitativa,” without mention of the collaboration of Puma or Pino Mazzini. But a prior edition, “La matematica futurista—Manifesto,” Gazzetta del Popolo (Feb. 2, 1940), lists all three authors. Marinetti’s publications on mathematics extend back to “Quarta dimensione di matematici e artisti,” published in Gazzetta del Popolo (Nov. 30, 1928) and “Superare la matematica. Verso la quarta dimensione,” Oggi e Domani 1.7 (June 2, 1930).


CHAPTER SEVEN

Mapping Futurism

Performance in Rome and Across Italy, 1909–1915 with a Coda on Interwar Calabria

PATRICIA GABORIK

When Filippo Tommaso Marinetti’s play La donna è mobile (the Italian version of his Poupées électriques) opened on January 15, 1909, the audience didn’t much care for it.1 When they started to whistle—as is the Italian way to express discontent with a show—after the second act, Marinetti climbed onto the stage, absorbed the jeers, and thanked the crowd for “this whistling, which does me great honor.” This incited total uproar, for it wasn’t normal behavior in the theatre. “Not all of the nuts are in the nuthouse,” declared the reviewer from Il Lavoro, while the one from the Gazzetta del Popolo reported that “What we saw last night was not a performance, but a battle, pandemonium, chaos.” In other words, on this night, Marinetti created a new sort of relationship with the public—the type of provocation that would become synonymous with his movement. The Foundation and Manifesto of Futurism sat at home on his desk, awaiting its moment to step into the spotlight. This night, at the Teatro Alfieri, Marinetti set the stage for its appearance.2

All of this happened in neither of the founding cities of futurist legend—Milan or Paris—but in Turin. As such, it highlights two of the key issues I will address here: the centrality of live performance to the futurist project and the extent to which the movement immediately relied on a far and wide diffusion across Italy. It was not, as tends to be perceived, a movement that spread from Milan (where Marinetti lived), to Florence (where the Lacerba group finally allied itself to Marinetti’s), to Rome (“città passatista,” or “passeist city,” par