In a century replete with radical politics, final liberations, ends of history and dreams of eternity, Louis-Auguste Blanqui, the constant revolutionary, wrote *Eternity by the Stars* in the last months of 1871 while incarcerated in Fort du Taureau, a marine cell of the English Channel.

While contemplating his confinement, Blanqui devised a simple calculation by bringing the infinity of time in confrontation with the finite number of possible events to suggest a most radical conclusion: every chain of events is bound to repeat itself eternally in space and time. Our lives are being lived an infinity of times across the confines of the universe and death, defeat, success and glory are never final. For the world is nothing but the play of probabilities on the great stage of time & space.

By straddling the boundaries of hyperrealism and hallucinatory thinking, Blanqui's hypothesis offers a deep, tragic, and heartfelt reflection on the place of the human in the universe, the value of action, and the aching that lies at the heart of every modern soul.

This first critical edition of Blanqui's incantatory text in English features an extended introduction by Frank Chouraqui. Exploring sources of Blanqui's thinking in his intellectual context, Chouraqui traces the legacy of the text in critiques of modernity, devoting particular attention to the figures of Nietzsche, Walter Benjamin, & Borges. It features copious illuminating annotations that bring out the web of connections that intertwine the great marginal figure of Blanqui with more than two millennia of European culture. For this is a book that, as Benjamin notes, "consummates the constellations of phantasmagorias of modernity, the magical images of the century, in a final phantasmagoria."

Blanqui's *Eternity by the Stars* is a must read for anyone who has been enthralled by Nietzsche, Walter Benjamin, or Borges. This book should certainly be in the canon of philosophical prison literature, alongside writers like Boethius & Gramsci. — Gary Shapiro, Prof. of Philosophy, Tucker-Boatwright Professor of the Humanities, Emeritus, University of Richmond

Here rendered admirably into English for the first time by Frank Chouraqui, Blanqui's cosmological prose stands alongside Blake's later prophecies, Poe's *Eureka*, and Borges' *Ficciones* as a homage to the human mind's capacity "to see the world in a grain of sand" (and "hold infinity in the palm of your hand"). — Richard Sieburth, Professor of French, Comparative Literature, NYU
ENCOMIUMS

Blanqui’s *Eternity by the Stars* is a must read for anyone who has been enthralled by Nietzsche, Walter Benjamin, or Borges. Chouraqui’s perceptive and erudite introduction and notes clarify the logic of the argument, Blanqui’s reception by major thinkers, and the context of the essay’s composition in solitary confinement following the Paris Commune. This book should certainly be in the canon of philosophical prison literature, alongside writers like Boethius & Gramsci.

— Gary Shapiro, Prof. of Philosophy, Tucker-Boatwright Professor of the Humanities, Emeritus, University of Richmond

Blanqui’s *Eternity by the Stars* is the late, phantasmagoric manifesto of a man who had been condemned to prison for the better part of his life on account of his radical politics. Encountering this text toward the end of his career, Walter Benjamin pronounced it an incomparably bleak (yet potentially messianic) articulation of the Ever-Sameness of the New on the order of Nietzsche’s doctrine of the Eternal Return. Here rendered and admirably introduced into English for the first time by Frank Chouraqui, Blanqui’s cosmological prose stands alongside Blake’s later prophecies, Poe’s *Eureka*, & Borges’ *Ficciones* as an homage to the human mind’s capacity “to see the world in a grain of sand” (and “hold infinity in the palm of your hand”) — that is, to imagine the boundless self-sameness of the universe across space and time as a revolutionary opportunity to dissolve the antinomies between the actual and the possible, liberty & fate.

— Richard Sieburth, Prof. of French, Comparative Literature, NYU
LOUIS-AUGUSTE BLANQUI

Eternity by the Stars
an astronomical hypothesis
Selected Other Works by
Louis-Auguste Blanqui

L’armée esclave et opprimée

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Instructions pour une prise d’armes

Maintenant il faut des armes

Ni dieu ni maître

Qui fait la soupe doit la manger

Réponse

‘Un dernier mot
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♦
To Keith Ansell-Pearson
At the Crossroads of History:

Blanqui at the Castle of the Bull
The Fort du Taureau (or Castle of the Bull) is an ellipse-shaped fortified island lying half-a-mile outside of the rocky shores of Morlaix at a place where, after briefly morphing into the English Channel, the Atlantic Ocean finally returns in the guise of the North Sea. It is also the place where, in keeping with the dubious honor made by weak regimes to figures whose ideas are more dangerous than their bodies, the fragile “Executive Power” of Adolphe Thiers — a transitional government squeezed between Napoleon III’s Second Empire and the Third Republic — decided to wall up its most famous revolutionary, in the hope that isolation would let his power dwindle & his existence fade away into nothingness. Standing on the other side of the bargain, Louis-Auguste Blanqui was left no choice but to wager, on the contrary, that survival always contained the possibility of return. The post-revolutionary refusal of the absolute is nowhere so well illustrated as in these concrete blocks scattered across the sea, monuments to the messy arrangements between fearful regimes that compromise their future for the sake of their present and their visionary dissidents, who accept the opposing end of the bargain, for revolution in all its incarnations is always a projection towards the future. It is there, as the sole inmate of a sea prison, deprived of vision by guards instructed to shoot him if he came anywhere close to the window, that Blanqui conceived
Eternity by the Stars. A strange book by any count, Eternity by the Stars is also the expression of a strange movement in the soul of its author. Coming from a man of action, practical in the extreme, who didn’t know any courage other than physical, and any human virtue other than courage, Blanqui’s confinement could only mean the beginning of an unheard-of form of thinking. The values are of course still there, simple, deliberately simplistic & brutally well-defined, so as to never infringe on the potential for action: the future must be forced into the present, freedom is always the freedom to act, and the possible can never be reduced to the real; the tone and the project however, are now as different as can be.

At the Castle of the Bull, Blanqui found himself surrounded by a world of repetition. In a circular cell with a vaulted ceiling, listening to the ebb & flow of the sea, and the repetitive beating of the waves, Blanqui offers us a reflection on missed opportunities and the crossroads of history. Eternity by the Stars puts forward the major thesis that all is possible and that all that is possible is actual. The perceived difference between actual & possible is only a topological difference, the only limitation of man is the limitation of his senses, for worlds are only differentiated by the realm of the sensations of every given man. By establishing the coexistence of all events, Blanqui once again places the human mind at the core of the fate of the universe, for Eternity by the Stars replaces the disjunctive logic of linear time with a conjunctive logic in which understanding blends into imagina-
tion, and the human mind merges into a cosmic reality where the possible is simply a name of the actual, finally collapsing the unfolding of time into an unfolded space. From the confinement of his cell, Blanqui gave flesh in an unheard-of manner to the commonplace intuition he shared with all the wretches in past, present, or future jails: the freedom to think & the freedom to write is as real as any freedom. If the possible is really the conceivable and imaginings can be written down, words on the page signify not the musings of their author, but the map of the universe itself as Blanqui ceaselessly crosses the conventional separation of text and reality. For in Eternity, it is “globes pouring out of the quill by the billions” that we witness, and it is the time of naming worlds that measures the time of interstellar travel: under his astronomer’s cloak, Blanqui the Promethean atheist, remains, & his verdict is that human understanding is in fact the understanding of a god, an understanding that conceives worlds in the strong sense of the word, and his telling the world is the same as the world it tells. In eternity, man & god are the same, for the human’s access to the world constitutes it in ways heretofore reserved to divinities. At the Castle of the Bull, reduced to his potential, a man of action could only be left to his own musings on the falsity of the difference between potential and action.

The arrest of Blanqui on March 17, 1871, and his subsequent confinement at the Bull, were far from being his first imprisonment. In fact, if we include the sentence delivered to him later, on February 15, 1872, Blanqui had been
sentenced to prison more than nine times between 1831 and 1872, including, in addition to minor penalties, two death sentences, two life sentences, one exile sentence & two sentences of 10 and 4 years respectively. As for most political prisoners in 19th-century France, the application of such sentences was chaotic, interrupted & commuted by the fancy of complex and capricious political games.

Born in 1814 to a bourgeois family, Blanqui’s life offers a summary of the vicissitudes of the socially-eventful 19th century. For Blanqui was the man of every battle; indeed, the inventor-discoverer of political battlefields: if the war is between the rich & the poor, as most of the socialist left contended, this means that any power given by the bourgeoisie to the proletariat must be viewed with suspicion; indeed, it must be viewed as a sign that the proletariat must take stock of its own power: for every concession of the bourgeoisie is only a faint reflection of the power of a proletariat suffering from a chronic inability to recognize its own power. The state offers elections? They should be banned. The state offers social reform? We demand revolution. The state offers social mobility? This no longer concerns bourgeoisie and proletariat, but humans, and the struggle should be personalized.

Blanqui’s political genius was constantly busy assessing the political systems that succeeded each other, locating their weaknesses like a general on the battlefield, before tying the strategic flaws of the enemy to an ideological and moral failing: not only can power be taken on; it must, on moral grounds, be taken down.
The duty of opposition is not only determined by the iniquity of those in power, it is also in and of itself the natural place of the honest man. In a word: power coincides with depravation, and institutions are inhuman.

It was the last throes of a typically French experiment in constitutional monarchy that gave Blanqui a first taste of the weakness of all regimes, as well as a first experience of missed opportunity. In 1839, he was one of the leaders of a narrowly defeated Parisian insurrection against Louis-Philippe’s July Monarchy. The first death sentence ensued. The rule of Louis-Philippe would indeed survive widespread unrest until the famous revolution of 1848. A success by all counts, that uprising ushered the return of the Republic, that is to say, nothing more than the arrival of a new enemy in the eyes of Blanqui’s radicalism. He would walk out of his cell ten years later, with the Republic long gone, to see an emperor where a king had been ousted. This led to four years of prison and an escape, followed by a string of failed uprisings leading up to the famous Paris Commune (March–May 1871). Of course, by the time the Commune had been established and crushed by Thiers, Blanqui was already held captive again: a missed opportunity for history and a most cruel exclusion from the only three months of the 19th century when the Paris air was worth anything to Blanqui’s political lungs. It is hardly any wonder that after four narrowly failed revolutions, countless foiled conspiracies & prison cells, Blanqui’s mind began turning to a deeply speculative reflection on missed opportunities.
Eternity by the Stars was written at the Fort du Taurou, between the end of May and the middle of November 1871, & published on February 20, 1872, three days after Blanqui was sentenced to life imprisonment by a Versailles tribunal. However, the manuscript was part of Blanqui’s plans for his legal defense, and he insists in a letter to his sister of January 31, 1872, that the manuscript be published ahead of his trial, distributed to the press & to the members of the Assembly, and left in plain sight within the Tribunal chambers at Versailles. On May 28, 1872, still hopeful for a revision of his trial, he requests that his correspondent give copies of Eternity by the Stars to assemblymen Edmond Adam and Jules Barthélémy-Saint-Hilaire, two close allies of Thiers’, with instruction to “remind both men that my case is not in the hands of the committee of the stars [la commission des astres], but of Thiers alone.” Was Blanqui intentionally renaming the pardons committee [la commission des grâces], in which he placed all his hopes, by changing its name to “the committee of the stars” [la commission des astres]? In their insightful and impassioned presentation of their French edition of Eternity by the Stars, Miguel Abensour & Valentin Pelosse, who quote this letter without

commenting on this odd phrasing, go to great lengths to refute the alleged misconception that the pamphlet was an expression of *ressentiment*, that is to say, an appeal to the abstract intended to offset the material frustration of imprisonment and political oppression, perhaps even a prophetic warning aimed at the tyrant from a recluse with the ability to read the stars. There is, however, some degree of anachronism in trying to defend Blanqui from charges of ressentiment, defined in such a Nietzschean sense. As if Blanqui’s proximity with Nietzsche’s own thought of eternal recurrence (which appears only a decade later) should make him close to Nietzsche’s aristocratic ethics, which is the only ground from which such a concept and criticism of asceticism wields any power. In fact, if Nietzsche’s critique of asceticism has any bearing on Blanqui, it precedes the astronomical remarks, and perhaps helps reveal how they are a continuation of a lifetime of activism: a man like Blanqui, a French socialist of the post-Enlightenment breed, had always recognized only one judge and one tribunal, for himself and his fellowmen, and this judge was nature conceived as a benevolent, moral guarantor of human rights. Linguistic slip or not, ascetic or not, *Eternity by the Stars* is nothing else than a secular plea to the gods of science, the desperate plea of the wretched of the earth for being allowed into a whole in which defeat is never final, mistakes can be redeemed, missed opportunities recur, and where the crossroads of history leave no road untraveled. The stars are indeed Blanqui’s only pardons committee.
The main claim of *Eternity by the Stars* is that the discrepancy between a limited — albeit great — number of possible events and the infinity of time and space necessitates the infinite repetition of all possible events.

This “hypothesis” is supported by four key theses: firstly, that space is material and infinite, and therefore, that matter itself is infinite (chapters I and II). Secondly, that all matter is the result of a chemical organization of a limited number of elements. Blanqui uses spectral analysis to suggest that the number of chemical elements present across the universe is limited. He recognizes that new ones may be discovered in the future beyond the 64 already identified at his time, and assumes that the number might eventually reach 100 (chapter IV). Thirdly, all such matter can only be organized into solar systems, for the only rules applying to all matter are the rules of Newton’s celestial mechanics as developed by Laplace (chapter V and VI). This means that phenomena that seem to escape such rules, like comets, are either immaterial or simply misunderstood, & in any case, do not present a threat to Blanqui’s argument (chapter V). Finally, Blanqui addresses the difficult question of origins, which he accused Laplace of “dodging.” Unlike Laplace, Blanqui places the infinite at the center of his argument, and is therefore compelled to tackle it directly. He does so by making the infinite prevail over the need for origins: worlds constantly become resurrected and reincarnated, as only a limited amount of matter is ever available in
the world, and what makes a world is simply a certain organization of such matter, & its death is but an undoing of this organization, that is to say, only a transformation into another organization, into another world (chapter VI). In addition to these explicit arguments, we should stress two crucial assumptions apparently taken for granted by Blanqui. First is his atomism, which makes him repeatedly state that “matter cannot diminish or increase by one atom,” for it is only the combination of a limited (atomistic) intensive space and an unlimited extensive space that can lead to Blanqui’s statistical speculation. Secondly, matter thus conceived must be stable in amount; that is to say, every possible event must be accounted for as a reorganization of a given amount of matter and not a creation in any radical sense of the word. Although supported by the core of Lavoisier’s chemistry and his famous affirmation of the law of conservation of mass of 1789, often difficult to distinguish from the now disproven thesis of conservation of matter, it is however these very assumptions that would cause Blanqui’s thesis to perish at the hands of quantum physics, and is exploitation of the distinction between mass & matter. 2

These four theses and two assumptions constitute the groundwork for Blanqui’s thesis and in the first page of chapter VII, he considers the job complete. He concludes:

Nothing but stellar systems can be built, and a hundred simple bodies are the sole materials; this is a lot of labor and few tools. Admittedly, with such a monotonous plan and such a small variety of elements, it is difficult to engender enough different combinations to populate the infinite. Resorting to repetitions becomes necessary.

This in turn implies that every possible event is in fact actual too, and repeated infinitely through time (they will recur infinitely) and space (an infinite number of fully identical events are taking place at the same time throughout the cosmos).

All of Blanqui’s hypotheses can be brought back to relatively few scientific readings on his part. In fact, there is no definite evidence that Blanqui read more than two or three books, all of them regarded by their own authors as works of vulgarization: Pierre-Simon Laplace’s *Exposition du système du monde* (1796) and Francois Arago’s *Astronomie populaire* (1855), and perhaps his *Des comètes en général* (1832).

III

On several levels, Blanqui’s relationship with both authors is ambiguous. Although he is his principal source, and his direct interlocutor, Laplace is also the most chastised of Blanqui’s sources. Blanqui’s very first
mention of the great mathematician is also a declaration of defiance. He writes: “Laplace took his system from Herschel who took it from his telescope.” One may be permitted to locate in this formula an example of Blanqui’s legendary rhetoric of ambiguity: Herschel is summoned as an empirical caution ensuring that Blanqui’s own speculations — based on Laplace’s — remain grounded in observation. But by a subtle sleight of hand, this legitimacy seems to do no good to Laplace himself, who is left looking like a vulgar plagiarist. In fact, much of Blanqui’s relationship with science surfaces here: observations must be scientific, but systematic elaborations must be left to men of action and of imagination. Any figure who, like Laplace, intends to remain within the confines of the sciences while dabbling in systematic thought will become only a parody of a scientist, and a parody of a politician. Further, it could be said that Blanqui, in his ambiguous relationship with Laplace, announces in fact one of the key dimensions of his hypothesis, that of a politics of science. In a century replete with great men of science who were also great public servants (Laplace himself, Arago, Raspail, among many others), Blanqui, in typically materialist fashion, is concerned with the implicit connection made between the disinterested desire of knowledge and the need to respond to the constant call for action, that he calls poverty, exclusion, and oppression. It is, in fact, Blanqui’s unabashed impatience with political arguments and demonstrations in favor of (often rash) action that alienated many of his
radical colleagues. As regards Laplace, Blanqui’s complaint is double: Firstly, Laplace was the kind of man that any good socialist should stay away from, and so, for political reasons. Secondly, Laplace was unable to go far enough in his systematic forays, precisely because of his reprehensible taste for scientific caution, or in Blanqui’s terms, his obsession with mathematics and his defiance toward empirical observation (in this sense, Herschel remains unaffected by Blanqui’s attacks). Of course, to Blanqui’s mind, the two criticisms — one *ad hominem* based on Laplace’s politics and the other based on his scientific work — are related. For the distinction of a man from his work is but a bourgeois myth designed to maintain the paramount myth of interiority, a myth whose political efficiency is everywhere verified and deplorable. The implication, of course, is that without Blanqui, Laplace’s system would never have crossed the Rubicon that separates science from matters of ethics, metaphysics, and politics.

Let us return to Blanqui’s complaint that Laplace “dodged” the question of origins, for here again, the political criticism is used to fuel a scientific attack. The “dodging” Blanqui alludes to is Laplace’s famous yet romanticized response to Napoleon’s surprise to see no mention of God or of his Creation in Laplace’s *Exposition*. Laplace is said to have responded in terms that epitomize the entire scientific project: “But Sire, I had no need of that hypothesis.” Such a response could only please Blanqui, a staunch secularist himself, but he
also laments that it falls short of a formal rejection of God. If Laplace’s hypothesis, namely that the solar system comes from a concentrated nebula, was insufficient, it is because by making its object the solar system as we know it now, it leaves the *before* and the *outside* of the universe open to extravagant “hypotheses,” maintaining gaps for the entirety of the divine to pour into. Blanqui’s project, on the contrary, is to propose a cosmology that precludes any outside by placing the concept of the infinite at its core.

It doesn’t matter to Blanqui, it seems, that Laplace himself wrote a seminal work of philosophy with his *Essai philosophique sur les probabilités*, which concludes with these words:

> To anyone who would consider that even with regard to the very things that cannot be submitted to calculations, [the science of probabilities] offers the most assured insights susceptible to guide us in our judgments, and the fact that it teaches one to refrain from illusions that often lead us astray, it shall become clear that there is no science more worthy of our meditations, and which would be introduced into our public instruction system more profitably.³

³. Laplace (1814: 95–96).
This could not fail to remind us of Blanqui’s own unpublished “Essai sur l’enseignement de la cosmographie,” written in the very months of the Castle of the Bull, where the teaching of cosmography based on a deterministic use of probabilities is presented as an antidote to all superstitions & religions and therefore should, to Blanqui’s (and Laplace’s) mind, be included in all school curricula.

By any count, Laplace came very close to Blanqui’s cosmological conclusions. And measuring Blanqui’s “astronomical hypothesis” against the scientific genius of Laplace is nothing short of vain. The point is not that Laplace showed no interest in politics — he did, actively — but that he saw a distinction between politics and science and, according to Blanqui, this distinction is itself political, that is, bourgeois & conservative.

Was Blanqui’s judgment of Laplace unfair? Certainly, but is it fair for us to expect from Blanqui that he judge a mathematician in scientific terms? Blanqui’s complaint, although wrapped in the pretense of science, is not scientific; it has to do with a politics of science, & seen from this angle, it makes sense. The mathematician Jean-Pierre Kahane is correct, it seems, when he points out how in his Philosophical Essay Laplace limited himself to finite models to talk both about the finite and the infinite. He is also correct when, in Laplace’s defense, he notes: “this is no logical failure: for [Laplace], limit laws are but analytic tools designed to approach the proba-
bilities involved in a finite model.” Approaching the finite by way of the infinite is good science indeed, but Blanqui complains, it is only science. On the contrary, as Blanqui’s title should make plain, *Eternity by the Stars* proposes the opposite challenge: the infinite must be approached by way of the finite stellar observations we have in our possession. Once again, the apparently minor differences between Blanqui and his chosen opponent now appear as a full-fledged mutual exclusion: of the finite from the infinite, or of the infinite from the finite.

Laplace remained a scientist, and as a scientist, he remained wary of staking his entire system on the concept of the infinite, a concept that collapses his beloved separation of physics and metaphysics. Laplace, a wretched mathematician in Blanqui’s eyes, was also a wretched servant of Napoleon. Whether factually true or not, there is no doubt that the anecdote relative to Laplace’s exchange with Napoleon recalled above reflected Laplace’s attitude fairly closely. Indeed, it was nothing but the response of the scientific spirit to the political animal. God and the infinite are speculations, hypotheses that scientists must do away with. If politics is the science of the possible, it is no science at all, & the political mind must be kept away from empirical science. No two men can be more opposed to each other than the totalitarian Emperor and the constant revolutionary, but they were both aware that science was nothing

if not used for action, and that ideas came to life only through inspirations. If the duty of a good scientist is to remain within the bounds of physics, the role of the public figure is to break this separation: it is the spilling of knowledge into human emotion, morals, and myth that makes inspiration, and politicians win by inspiring.

This is the thinker’s contribution: along with the difference between physics & metaphysics dear to Laplace, a concept like the infinite is able to collapse the difference between here and there, past and present, self and other, cosmology and metaphysics, metaphysics and ontology, possibility & actuality, and further, theory & practice. We must regard the lesson of Blanqui’s speculation as the collapsing of difference in general for, as he writes: “as a whole as well as in detail, the universe is forever transformation and immanence.” To him, the infinite signifies the final rejection of externality into nothingness, for any outside is an outside of the whole, that is, just like the comets he dismisses at length, a “nihility.”

From within the infinite, Blanqui sees a purely democratic world surging forth, an extrapolation of his dear human brotherhood and solidarity, where not only men of a class, but all men become brothers; where not only mankind, but all objects become brothers. Comets are “homeless gypsies” the universal proletarians dispossessed of matter and thus condemned to be aimlessly roaming the vast expanses, like the wretched of the earth, stripped of material possessions, are left wandering in a world that cannot accept them as full citizens. Universes
are “brother-worlds” unified only on the plane of immanence secured by Blanqui’s infinite calculus, a calculus that strips any star of its alleged monarchical position in the closed world that precedes the establishment of the infinite. If suns are “kings” and solar systems “kingdoms,” their authority collapses in the infinite, and the “kings” soon become nurturing “queens” stripped of authority and yet endowed with all duties to their kingdoms, true anarchic rulers, true public servants in fact, models for men of power everywhere, models that no one follows:

The queens govern unknowingly their kingdoms by bestowing benefits to it. They do the sowing, but not the harvesting. They have the charges, but not the benefits. Although they are masters of force, they use it only for the sake of weakness… Dear stars! You shall find few imitators.

In this new, hallucinatory vision sprouting from within the narrow confines of a sea fortress, where any difference is only internal, where all is but a version of the other, where being oneself means being what one could have been and where being other means the same, Blanqui finds that his longing was always satisfied in reality, and that one’s only task is to come to terms with the vanity of all myths of progress, for the longed-for brotherhood is always already there, a brotherhood of worlds, where oppressive regimes live alongside anarchic, socialist, and brotherly societies in good intelligence; a world where
progress is not a task, but the name of another place, a world where existence is a man’s & a galaxy’s only justification, a world that has room for everything. Here is Blanqui’s lesson to Laplace: the true infinite collapses the opposition of science and action, of theory and practice, and opens up, indeed, necessitates, a politics of science.

Blanqui’s defiance toward scientific authorities, which borders on bad faith, is visible in his dealings with François Arago, his second main source after Laplace. Blanqui’s account of the comets relies entirely on Arago’s work, which doesn’t prevent him from expressing a peculiar form of disdain for his fellow-socialist. Blanqui, like most radical left-wing idealists of the 19th century, had quickly come to the realization that revolutionary movements (including his own) are suffering from a chronic case of what Freud would later diagnose as the “narcissism of small differences.” In his courtroom defense of March 31, 1849, relative to the events of the previous year, Blanqui declares that “the closest of opinions are those that hate each other the most.”

For such small differences mean everything, on either side of which one is an accomplice or not. For there are opinions that implicate the whole of history with them, and Arago’s moderation has, according to Blanqui, made him part of a history toward which the only honest attitude was withdrawal, and flight to the margins. Arago, Blanqui believes, is one of those republicans whose success in the revolution of 1848 only

5. Abensour & Pelosse 189.
led to a weak provisional government and a Second Republic (Arago resigned with his entire provisional government after 6 weeks in power, on June 24, 1848, making way for the Second Republic), a Republic which in turn would collapse into the criminal embrace of Napoleon III. To Blanqui’s mind, in one of the rash shortcuts that characterize all historical materialism, Arago’s Republic means Napoleon’s Empire, for it came before it and remote causality counts as identity. Through a series of intellectual sleights of hand later made common knowledge by the excesses of Soviet dogmatism, Blanqui already anticipates the great materialist thesis that internality is nothing, intention and result cannot be distinguished, and the fact makes the guilt. Blanqui declares with emphasis:

What barrier threatens the revolution of tomorrow? It is the very same barrier that wrecked the revolution of yesterday. It is the deplorable popularity of the bourgeois in orator’s disguise.


Mournful list! Sinister names! Spelled out in blood letters on all the paving stones of democratic Europe.

It is the provisional government that killed the revolution! It is on its head that must fall the responsibility of all the disasters, the blood of so many thousand victims.
The reaction only did its job when it slaughtered democracy. The crime belongs to the traitors whom the trusting population had accepted as their guides and who delivered the population to the reaction.⁶

Arago, the traitor, is also the main source of Blanqui’s account of the comets, and yet, even as a theorist, he is represented as a member of a hubristic humanity that dismisses the comets (something that Blanqui himself does, too) with a sense of cruelty (which it seems Blanqui wants to disassociate himself from):

Nowadays everyone has come to deeply despise those comets as miserable toys to the superior planets that rough them up, tear them apart in hundreds of ways, inflate them with solar fires, and finally throw them away in tatters. Complete degeneration! How humble was our former respect, when they were greeted as messengers of death! How many boos and whistles now that we know them to be harmless! There is mankind for us.

The nuance is subtle but, perhaps, significant: if Arago’s results are accepted by Blanqui, it is the attitude that

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differs, for the sense of cruelty Blanqui wants to read in Arago’s views echoes his political criticism: Bourgeois leaders cannot identify with the population they lead; in fact, they are always potential traitors for their commitment to the masses is only ever accidental. Similarly, the pleasure one may take in the spectacle of the woe-ful comets relies on a sense of distance, a breaking of the universal kinship of all celestial bodies in the infinite & immanent world of Blanqui’s vision. Blanqui’s critical relationship with Arago, like with Laplace, comes from his literal cosmo-politanism, a crucible where worlds and ages become brothers, as well as the potential, the actual, theory and practice, and with them, all disciplines; and eventually, man and reality themselves become reconciled.

For indeed, if there is any value for us — men of the 21st century and of a quantum world that belies Blanqui’s hypothesis at every turn — in reading Blanqui nonetheless, it is not for the science, a strange mash-up of Laplace and Arago, but for reasons that are cultural in the deepest sense. Blanqui’s text exerts a fascination that relies not only on the psycho-historical mystery of the hard-nosed activist turned speculative prophet, but further, in its ability to collapse the distinction of action and contemplation, and with it, that of mind and world. It is perhaps from this angle that the cases of Blanqui’s illustrious readers may be best approached.
Eternity by the Stars

An Astronomical Hypothesis
I. THE UNIVERSE — THE INFINITE

The universe is infinite in time & space, eternal, boundless and undivided. All physical bodies, animate and inanimate, solid, liquid and gaseous, are held together by the very things that separate them. Everything holds together. If one removed the celestial bodies, space would remain, absolutely empty of course, but still possessing all three dimensions, length, width, and depth, space undivided and unlimited.

Pascal once said in his magnificent language: “The universe is a circle, whose center is everywhere and its circumference nowhere.” What more striking image can present the infinite? Let us be even more precise and say after him: The universe is a sphere, whose center is everywhere and its surface nowhere.

The universe lies before us, open to observation and to reason. An incalculable number of stars shine from within its depths. Let us think of ourselves as standing in one of these “sphere centers,” which are everywhere, and whose surface is nowhere, and assume for a moment the existence of this surface, lying at the edge of the world.

Shall we say that this edge is solid, liquid, or gaseous? Whatever its nature, it immediately becomes the prolongation of what it restricts or attempts to restrict. Let us assume that at this point in space, there exists nothing solid, nothing liquid, no gas, not even ether.
Nothing but space, void & dark. This space is not deprived of a third dimension however, and its limit, that is to say, its continuation, will lie in a new portion of space of the same nature, and thereafter, in another, then another still, and so on, indefinitely.

The infinite can only present itself to us as an aspect of the indefinite. The one leads into the other by virtue of our manifest inability to encounter or even conceive of any limitation in space. Of course, the infinite universe is incomprehensible, but the limited universe is absurd. Our absolute certainty that the world is infinite, combined with its incomprehensibility, constitutes one of the most frustrating annoyances that torment the human spirit. There exists, undoubtedly, somewhere in the wandering globes, some brains whose vigor succeeds in grasping an enigma so impenetrable to ours. Let our jealousy come to terms with it.

The enigma is the same whether one considers the infinite in time or the infinite in space. The eternity of the world seizes our intelligence even more vividly than its immensity. How can a mind that refuses to attribute any bounds to the universe even bear the thought of its own non-existence? Matter did not rise out of nothingness. It shall not return to it. It is eternal, imperishable. Even though it is constantly transforming, it can neither diminish, nor increase, by one atom.²

If matter is infinite in time, why wouldn’t it be infinite in extension too? Both infinites are inseparable.
The one must imply the other; otherwise we would collapse into contradiction and absurdity. Science has not yet discovered the law of interdependence of space and the globes that travel across it. Heat, movement, light, electricity, necessarily exist throughout the whole of space. Some competent men believe that no part of the universe can be divorced from those great glowing hearths that bestow life upon the worlds. Our opuscule relies entirely upon the opinion which holds that the infinity of space is populated by an infinite number of globes and leaves no room in any corner for darkness, for solitude and for immobility.

II. THE INDEFINITE

Any conception of the infinite, however faint, must be borrowed from the indefinite, and even this weak idea takes on formidable appearances. Sixty-two digits, written over a length of about 15 centimeters, give 20 octodecillion leagues, or in more usual terms, billions of billions of billions of billions of billions of times the distance that separates the sun from the earth.

Let us now imagine a line of digits, running from here to the sun, that is to say, not of 15 centimeters, but of 37 billions of leagues. Isn’t the space frightening, that such a figure represents? Now, take this figure itself as a unit in the following new number: the line of digits
that describes it begins on the earth and stretches to that star, over there, whose light takes more than a thousand years to reach us, at a speed of 75,000 leagues per second. What would be the result of such a calculation, assuming that the tongue could even find enough words and time to enunciate it!

In this way, one may prolong the indefinite at will without transgressing the bounds of human intelligence, but also without even beginning to bite into the infinite. Let every word indicate the most frightening of distances, it would still take billions and billions of centuries, talking at one word per second, to express a distance which is only an insignificance when it comes to infinity.

III. THE PRODIGIOUS DISTANCE OF THE STARS

The universe seems to unfold, immense, before our eyes. In actual fact, it only shows us a very small corner. The sun is merely one of the stars of the Milky Way, the great astral gathering that occupies half of the sky, and whose constellations are just detached, disparate sections scattered over the nightly vault. Beyond it, a few imperceptible points, pinned to the heavens, signaling the existence of stars whose glow is dimmed by distance, further still, in the faint depths, the telescope divines some nebulae, a little bunch of whitish dust, the Milky Ways of remote confines.
The remoteness of these bodies is formidable. It eludes all the calculations of the astronomers, who have vainly tried to assign a parallax to the shiniest of them: Sirius, Altair, and Vega (the Lyre). Their results have not satisfied the public and they remain very controversial. They propose approximations, or rather a minimum, by locating the nearest star at more than 7,000 billion leagues. The better-observed one among them, the 61st of Cygnus, was assigned a distance of 23,000 billion leagues, 658,700 times the distance from the earth to the sun.\(^4\)

Light itself, traveling at 75,000 leagues per second, reaches this distance in no less than ten years and three months. The voyage by rail, at a speed of ten leagues an hour, would take 250 millions of years without any stop or deceleration. On that same train, it would take one only 400 years to travel to the sun. The earth, which travels 233 millions of leagues every year, would not reach the 61st of Cygnus in less than one hundred thousand years.

The stars are suns similar to our own. Sirius is said to be one hundred and fifty times larger. This is possible, but largely unverifiable. Undoubtedly, such luminescent hearths must exhibit wide differences in volume. Yet, any comparison is out of the question, and the differences in size and brilliance can only trigger questions of distance or rather trigger skepticism. Indeed, without sufficient data, any assessment is recklessness.
IV. THE PHYSICAL COMPOSITION OF THE STARS

Nature’s art of adapting organisms to their milieus without straying from its general overarching plan is marvelous. It is only by using simple modifications that it multiplies the types in impossible measures. It has been wrongly supposed that the celestial bodies were home to equally fantastical situations and beings, having no resemblance to the inhabitants of our planet. The fact that myriads of forms and mechanisms do exist is beyond doubt. But the plan and the materials are invariable. One is entitled to affirm without any hesitation that even at the extremities of the universe, the basis of all animal existence lies in the nervous centers, and that electricity is its principal agent. All other equipment is subordinate to this one, across thousands of incarnations determined by the milieu. Such is undoubtedly the case in our planetary group, which must exhibit an innumerable series of various assemblages. One does not even need to leave the earth to see such a nearly limitless diversity.

We have always considered our globe to be the queen of all planets; our vanity has often been humiliated. We’re almost mere intruders in the very group that our arrogance intends to subject to its supremacy. It is density that determines the physical constitution of a star. However, our density is not that of the solar system. It is in fact a rare exception that nearly throws us outside of the true family, made of the sun and the big planets.
In the whole of the procession, the volume of Mercury, Venus, the Earth and Mars together accounts for 2 out of 2,417, make it 2 out of 1,281,684 with the sun thrown in. We might as well count for zero!

Only a few years ago, such a contrast kept wide open the realm of fantastical speculation over the structure of the celestial bodies. The only thing that no one deemed doubtful was that they should not resemble our planet in any way. We were mistaken. Spectral analysis allowed us to dissipate this mistake, and demonstrate, in spite of strong evidence to the contrary, that the composition of the universe was unified. The forms are innumerable, but the elements are the same. Here we come to the fundamental question, a question that soars high above all others and dwarfs them; we must therefore explore it in detail by moving from the known to the unknown.

Until further notice, on our globe nature has at its disposal the 64 *simple bodies* named below. We say “until further notice” because the number of such bodies was only 53 a few years ago. Every now and again, their nomenclature gets enriched with the discovery of some metal, painstakingly extracted by chemistry from the stubborn bonds that link them to oxygen. In all likelihood, the 64 will reach the 100. But the serious agents are hardly more than 25. The rest share the bill only as stooges. They are called *simple bodies*, because hitherto, they have been found to be irreducible. We are arranging them more or less in order of importance:
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<th></th>
<th>Element</th>
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<td>1</td>
<td>Hydrogen</td>
<td>33</td>
<td>Manganese</td>
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<td>2</td>
<td>Oxygen</td>
<td>34</td>
<td>Zirconium</td>
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<td>3</td>
<td>Nitrogen</td>
<td>35</td>
<td>Cobalt</td>
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<td>4</td>
<td>Carbon</td>
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<td>5</td>
<td>Phosphorus</td>
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<td>6</td>
<td>Sulfur</td>
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<td>Strontium</td>
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<td>7</td>
<td>Calcium</td>
<td>39</td>
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<td>9</td>
<td>Potassium</td>
<td>41</td>
<td>Titanium</td>
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<td>10</td>
<td>Sodium</td>
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<td>11</td>
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<td>Rubidium</td>
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<td>14</td>
<td>Iron</td>
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<td>15</td>
<td>Magnesium</td>
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<td>16</td>
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<td>Mercury</td>
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<tr>
<td>32</td>
<td>Fluorine</td>
<td>64</td>
<td>Cerium</td>
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The first four, hydrogen, oxygen, nitrogen, & carbon, are the great agents of nature. We do not know which of these to give precedence to since their action is so universal. Hydrogen is first, because it is the light of all suns. Those four gases alone constitute nearly all organic matter, flora and fauna, with the adjunction of calcium, phosphorus, sulfur, sodium, potassium, etc.

Hydrogen and oxygen form water, with the adjunction of chlorine, sodium, and iodine for the seas. Silicon, calcium, aluminum and magnesium, in combination with oxygen, carbon, etc., compose the great masses of geological terrains and the superposed layers of the terrestrial crust. As regards precious metals, they have more importance for humans than for nature.

Till recently, those elements were held to be specific to our globe. What debates took place about the sun for example, about its composition, the origin and the nature of its light! The great controversy opposing emission and waves is now only just settled. Only its last rear-guard gunshots are still being heard. The victorious waves had built a rather fantastical theory upon their success: “The sun, a simple & opaque body just like any other planet, is enveloped in two atmospheres, the one, which resembles ours, serves as an umbrella that protects the indigenous peoples against the second, called photosphere, which is the eternal and inexhaustible source of light and heat.”

This widely accepted doctrine has long reigned over science, in spite of all the analogies it contradicts. The
central fire that hisses below our feet suffices to confirm that our earth once was what our sun is today, and the earth was never covered with any perennial and electrical photosphere.

Spectral analysis has dissipated such errors. It is no longer a question of inexhaustible and perpetual electricity, but more prosaically it is a matter of hydrogen burning, here like there, in conjunction with oxygen. The pink protuberances are formidable spurts of flaming gas, which exceed the disc of the moon during total solar eclipses. As regards the sunspots, one was right to conceive of them as large funnels opening into gaseous masses. It is the hydrogen flame, swept by storms over immense surfaces, and offering a glimpse of the core of the star, be it in a liquid or in a greatly compressed gaseous state, not as a dark opacity, but rather as a relative obscurity.

So, no more chimeras. Here we see two terrestrial elements providing light to the universe, just like they provide light to the streets of Paris and London. It is their combination that spreads light and heat. It is the product of this combination, water, which creates and entertains organic life. No water, no atmosphere, no flora or fauna. Nothing but the cadaver of the moon.

Ocean of flames in the stars for enlivening, ocean of water on the planets for organizing, the association of hydrogen and oxygen is the government of matter, and sodium is their inseparable companion in both of their two opposed forms, fire and water. In the solar spectrum,
this combination shines brighter than any other; it is the principal element of the salt of the seas.

Although so peaceful nowadays in spite of some slight wrinkles, those seas have known whole other types of storms in the past, when they whirled into devouring flames on the lavas of our globe. It is nonetheless the very same mass of hydrogen and oxygen now as it was then, but what a metamorphosis! Evolution is accomplished. It shall be accomplished on the sun just as well. Its spots already indicate the existence of temporary lacunæ in the combustion of hydrogen, and time will only increase and multiply such lapses until they become permanent. This will take centuries to happen, no doubt, but the decrease has begun.

The sun is a declining star. One day will come when the combination of hydrogen and oxygen, no longer able to decompose itself in order to re-create the two elements separately, will remain what it ought to be: water. On that day, the reign of the flames shall be brought to an end and that of aqueous vapors, whose last word is the sea, shall begin. Once these vapors envelop the fallen star with their thick masses, our planetary world shall fall into eternal night.

Before this fateful end, humanity will have the time to learn a number of things. It already knows, thanks to spectrometry, that half of the 64 simple bodies that compose our planet also exist in the sun, the stars, and their entourage. Mankind knows that the whole universe
draws light, heat, and organic life from the association of hydrogen and oxygen, as flames or water.

Not all of the simple bodies appear in the solar spectrum, and conversely, the spectrums of the sun and the stars reveal the existence of elements unknown to us. But this science is still new and inexperienced. It is barely uttering its first words and they are decisive. The elements that compose the celestial bodies are identical everywhere. Every tomorrow shall only unfold further the evidence of such an identity. At first, it seemed that the discrepancies in density were an insurmountable obstacle to any similarity between the planets of our system, but they are now losing much of their isolating significance, as we see that the sun, whose density is a mere quarter of ours, contains metals such as iron (density 7.80), nickel (8.67), copper (9.95), zinc (7.19), cobalt (7.81), cadmium (8.69), chromium (5.90).

Nothing is more natural than the fact that simple bodies exist on a variety of globes in different proportions, causing discrepancies in density. Granted, the materials of a nebula must find their respective place on the surface of the planets according to the laws of gravity, but this arrangement does not prevent the simple bodies from coexisting within the whole of the nebula and then to order themselves in accordance to these laws. It is precisely the case in our system, and, as it appears, in the other stellar groups too. We shall turn to the consequences of this fact in a moment.
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ABOUT THE AUTHOR

In a century replete with radical politics, final liberations, ends of history and dreams of eternity, Louis-Auguste Blanqui, the constant revolutionary, wrote *Eternity by the Stars* in the last months of 1871 while incarcerated in Fort du Taureau, a marine cell of the English Channel.

While contemplating his confinement, Blanqui devised a simple calculation by bringing the infinity of time in confrontation with the finite number of possible events to suggest a most radical conclusion: every chain of events is bound to repeat itself eternally in space and time. Our lives are being lived an infinity of times across the confines of the universe and death, defeat, success and glory are never final. For the world is nothing but the play of probabilities on the great stage of time & space.

By straddling the boundaries of hyperrealism and hallucinatory thinking, Blanqui's hypothesis offers a deep, tragic, and heartfelt reflection on the place of the human in the universe, the value of action, and the aching that lies at the heart of every modern soul.

This first critical edition of Blanqui's incantatory text in English features an extended introduction by Frank Chouraqui. Exploring sources of Blanqui's thinking in his intellectual context, Chouraqui traces the legacy of the text in critiques of modernity, devoting particular attention to the figures of Nietzsche, Walter Benjamin, & Borges. It features copious illuminating annotations that bring out the web of connections that interlace the great marginal figure of Blanqui with more than two millennia of European culture. For this is a book that, as Benjamin notes, "consummates the constellations of phantasmagorias of modernity, the magical images of the century, in a final phantasmagoria."