

Chew-Chew: The Space-Devouring Train and the Fiction of Naturalism in Zola's La Bête humaine

Alexandre Dubois
Regis University

RÉSUMÉ

L'apparition et l'influence du train au XIXe siècle ont bouleversé les perceptions occidentales – et surtout françaises – de l'espace, du temps et de la vitesse. L'influence du chemin de fer a été d'une telle ampleur qu'elle s'est étendue non seulement aux aspects économiques, sociaux, politiques, mais aussi psychologiques de la société moderne. Dans ce contexte, comment rendre compte des effets du train sur les gens? Cet article examine le rôle de la littérature, et en particulier de La Bête humaine d'Émile Zola, en tant que force contraire à l'hégémonie du chemin de fer. Avec Zola, nous voyons que le chemin de fer passe de la fonction à la fiction, en ce sens qu'il devient une figure littéraire qui catalyse à la fois le caractère direct et mathématique de la machine et un aspect paradoxal et insaisissable que seule la fiction peut apporter. Le récit ambivalent de Zola sur la machine – dû en partie à son utilisation ambivalente de l'esthétique naturaliste – ravive les aspects effrayants et imprévisibles du train comme moyen de contester son exactitude scientifique et son rôle sociétal. La fin du roman de 1890 présente ainsi un train incontrôlable, fantomatique, incarnant un danger à la fois invisible et tangible qui menace de tout dévaster sur son passage à la fin du siècle et dans le siècle à venir.

ABSTRACT

The emergence and influence of the train in the nineteenth century drastically shifted Western – and especially French – perceptions of space, time, and speed. The railway's influence was of such magnitude that it extended not only to economic, social, political, but also to psychological aspects of modern society. In this context, how can one convey the effects the train had on people? This article considers the role of literature, and in particular Émile Zola's La Bête humaine, as a counterforce to the railway's hegemony. With Zola, we see that the railway moves from function to fiction, in that it becomes a literary figure that catalyzes both the mathematical directness of the machine and a paradoxical elusive aspect that only fiction can bring about. Zola's ambivalent account of the machine – due, partially to his ambivalent use of naturalist aesthetics – reignites the fearful and unpredictable aspects of the train as a means of contesting its scientific exactitude and societal role. The end of the 1890 novel thus presents an uncontrollable, ghost-like train embodying both an invisible and a tangible menace that threatens to devastate everything in its path at the end of the century and into the upcoming one.

In his 2014 book *The Railway Journey*, Wolfgang Schivelbusch describes nineteenth-century railroad travel as an annihilation of time and space.¹ The reason behind Schivelbusch's use of the term "annihilation" has to do with the fact that nothing else in the nineteenth century seemed as vivid and dramatic a sign of modernity as the railroad. Since its conception, the idea of railroad always carried with it a note of menace and an undercurrent of fear. The popular images of the mechanical horse, for instance, provoked feelings of dread in the very act of burying the train in a domesticated metaphor; people of that era feared the familiar horse's displacement by a fire-snorting machine perceived as a beast about to devour everything in its way.² Once it appeared, the machine seemed unrelenting in its advancing dominion over the landscape; and, in little over a generation, it had introduced a new system of behavior related to travel and communication, but also to thought and feeling.

This article will examine how the train's emergence and influence in the nineteenth century drastically shifted Western – and more precisely French – perceptions of space, time, and speed. The railway's capacity to go through entire countries and connect distant cities contributed to the unification and industrialization of the modernized world. Yet the train simultaneously reduced geographical space to a mathematical and systematized grid in the service of imperialism. For Ronald Robinson, the influence of the railway is such that the train is not only a function of imperialism; in fact, imperialism may have been a function of the railway.³ If this study considers the power of the train over the social, the psychological, and the political, it goes further in its analysis of the role of literature as a counterforce to such hegemony. With Émile Zola's *La Bête Humaine*, I argue that the railway moves from *function* to *fiction*, in that it becomes a literary figure that catalyzes both the mathematical directness of the machine and a paradoxical elusive aspect that only fiction can bring about. This contradiction results in what Olivier Lumbroso refers to as "chaosmos," a principle through which order and disorder are in perpetual tension in the novel, but also, as I explain, within the train itself.⁴ What is more, the reliance on fiction to give a more truthful account of the railway's effects on society and the human mind is part and parcel of Zola's conception of naturalism – one that shakes up regimes of representation and showcases scientific observation as a limited method when trying to report on the modern world.

As Schivelbusch indicates, the new high-speed travel associated with the railway resulted in a shrinking of space; previously far away cities and countries became closer, as if urban space were now forming one immense city.⁵ The influence and hyper-connectivity of the railway changed spatial relationships so dramatically that the traditional space-time continuum of older methods of transportation disappeared in favor of a very different perception and understanding of

¹ Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century* (Oakland: University of California Press, 2014) 33.

² For more on the history of mechanical horses, see Megan Garber, "A Brief History of Mechanical Horses," *The Atlantic* (Sept. 28, 2012). <<https://www.theatlantic.com/technology/archive/2012/09/a-brief-history-of-mechanical-horses/262942/>>. For a pictorial example, see Carl Rakeman, "The Iron Horse Wins" (1830), U.S. Department of Transportation Federal Highway Administration <<https://www.fhwa.dot.gov/rakeman/1830.htm>>. The illustration demonstrates how the nineteenth century paired the horse with the locomotive, as if the latter was the natural evolution of the former. This pairing not only reduced horses to mere tools, to technologies in the service of humankind; it also showcases the locomotive as a technology that retains a certain beastliness, a power that contains both natural and mechanical elements – an important point to be developed later in this paper.

³ Clarence B. Davis, Kenneth E. Wilburn, Ronald E. Robinson, *Railway Imperialism* (Westport, CN: Greenwood Press, 1991) 2.

⁴ Lumbroso, *La Bête humaine: Chaos et création* (Paris: Presses Sorbonne Nouvelle, 2021) 11.

⁵ Schivelbusch 34.

distances. Geographically, the railroad opened up new spaces that were not accessible before, but this was achieved, as Schivelbusch has noted,

by destroying space, namely the space between points. That in-between, or travel space, which it was possible to “savor” while using the slow, work-intensive ecotechnical form of transportation, disappeared on the railroads. The railroad knows only points of departure and destination.⁶

This obsession over points of departure and destination recalls that the movement from A to B is the condition by which a product becomes a commodity. Karl Marx is useful here to clarify that, with the transport of products from one city to another – that is, from their place of origin to a distant market – something is irremediably lost. The local context in which the product comes from, its local identity, its spatial presence is discarded the moment it becomes a commodity, an object of consumption no longer attached to its origin.⁷ The loss of local identity and the erasure of spatial distances end up making remote regions no longer remote, no longer isolated because they are absorbed by the railroad.

Moreover, the temporal singularity of remote regions is also erased because, with the advent of the railway, times of departure and arrival became standardized in order to increase the efficiency of train schedules. As the rail network grows denser, incorporating more and more regions, the retention of local times becomes untenable: in 1880, railroad time became general standard time in England.⁸ To exemplify such phenomena, we can turn to Zola’s *La Bête humaine*. The whole story is traversed by landmarks and points of reference that emerged from the railway’s domination of space and time. In the first chapter, the actions of Roubaud and/or Séverine are often introduced by a temporal marker, so that the railway’s precision of standardized time sets up the scenes: “La demie sonna”; “Cinq-heures vingt, nous avons le temps”; “Dès six heures un quart”; “À six heures vingt”; “L’horloge marquait six-heures vingt-sept”; “Dans une minute, la demie sonnerait.”⁹ The characters constantly check what time it is because they temporally situate themselves according to the train’s schedule and timeline.

In the second chapter, the reader becomes familiar with the most iconic geographical location mentioned in *La Bête humaine*, La Croix-de-Maufras – a place which symbolizes the loss of isolation in the age of the train and the consequences of such a loss. The only fictitious location in the novel, La Croix-de-Maufras is a *carrefour* where the road is traversed by the railway line connecting Le Havre and Paris. The second chapter introduces the point of intersection by describing the house where Jacques Lantier’s aunt, Phasie Misard, lives with her husband and daughter. The chapter begins as follows:

À la Croix-de-Maufras, dans un jardin que le chemin de fer a coupé, la maison est posée de biais, si près de la voie, que tous les trains qui passent l’ébranlent; et un voyage suffit pour l’emporter dans sa mémoire, le monde entier filant à grande vitesse la sait à cette place, sans rien connaître d’elle, toujours close, laissée comme en détresse, avec ses volets

⁶ Schivelbusch 38.

⁷ See Karl Marx, *Grundrisse: Foundations of the Critique of Political Economy*, tr. Martin Nicolaus (London: Penguin Books/New Left Review, 1973).

⁸ Schivelbusch 43.

⁹ Zola 11, 37, 38, 39, 40, 41.

gris que verdissent les coups de pluie de l'ouest. C'est le désert, elle semble accroître encore la solitude de ce coin perdu, qu'une lieue à la ronde sépare de toute âme.¹⁰

The anonymity of the house mirrors the insignificance of the station La Croix-de-Maufras. Despite its desolate location, passengers are aware of the house; but because railway travel does not identify the nature and characteristics of what is being traversed, "le monde entier filant à grande vitesse la sait à cette place, sans rien connaître d'elle." Knowledge appertains not to the identification and recognition of the house as such, but of the place as a coordinate. What is known is the *site* of the house, its cartographic placement equated here to a quick and blurry *sight* in its direction, that cannot lead to recognition and identity – only to the acknowledgment of its situation. Hence the house is nothing more than a geographic coordinate, emptied of its personality and known to all as a landmark, signifying that there are X kilometers left from either Paris or Le Havre.

In many ways, La Croix-de-Maufras exists as a place only insofar as it is a crossroads: Phasie's husband is a "garde-barrière," whose work for the railway includes supervising circulation to make sure the train passes by without disruption. However, hardly anyone crosses the track on the road anymore: "[L]e passage à niveau [...] est très peu fréquenté, la vieille barrière à demie pourrie ne roule guère que pour les fardiens de Bécourt, dans la forêt, à une demi-lieue."¹¹ When, at the end of the chapter, the body of Grandmorin – killed by Roubaud and Séverine – is found by Jacques Lantier, Misard's first reaction is to check a nearby landmark so to know its location. He then finds a kilometer post and claims: "Bon! Juste au poteau 153."¹² That detail contributes to associating the characters and the desolate places in the novel with the railway system, but it ensures further that the dramatic events of the story are connected to the train. Not only is Grandmorin murdered on a train, but his body is also discovered thanks to railway markers; the dramatic events, murders, and violent acts that dominate in the novel are part and parcel of a grid system that localizes murder with indifference. Grandmorin's corpse, instead of being transported immediately elsewhere, must remain where it is found by the tracks for a long period of time after its discovery. The station master waits next to it all night long, until the public prosecutor, the doctor, and the court clerk finally arrive *by train* the following day.

If this situation implies that everything revolves around the railway, it also inscribes the dead body within a grid system that can only transport it from point A to point B, thus linking it to a kilometer post. This situation amounts to making death or murder a non-serious, irreverential matter that can be dealt with only according to the railway schedule, which continues no matter what the circumstances: "Déjà le train joyeux filait au loin, dans l'insouciance de ce cadavre que les roues avaient frôlé."¹³ Jacques then wonders: "C'était donc bien facile de tuer? Tout le monde tuait."¹⁴ The overwhelming presence of violence in the novel results in the insertion of murder and brutality on a grid system that makes death geographically localized along the *lines* of the railway, an in-between space that loses its importance and gravity in the modern industrialized age. In other words, death and murder are *in the way*, set aside with indifference because they are neither a point of departure nor a point of destination – merely a kilometer post.

¹⁰ Zola 43.

¹¹ Zola 43-44.

¹² Zola 74.

¹³ Zola 75.

¹⁴ Zola 75.

Furthermore, the impact of the railway on human perception is so strong that it brings with it the erasure of visual backgrounds to the benefit of an evanescent understanding and perception of the landscape. From a train window, the countryside is no longer perceived intensely; rather, the human observer acquires an impressionist, fleeting view. The attractiveness of the landscape no longer has to do with its vastness but, with the advent of the train, the emphasis instead is on how it presents objects in a state of dispersal, as Schivelbusch has noted: “More exactly, in panoramic perception the objects were attractive in their state of dispersal. That attraction was generated by the motion that created this perception of the objects in the observing subject.”¹⁵ In such a context, the localization of Grandmorin’s body at a kilometer post acts as a verticality that gets swept away by the horizontality of panoramic vision. The dramatic event and murder of Grandmorin, in a way, becomes *dispersed* when the train’s panoramic vision no longer fixes itself on objects and details and instead only glances at them fleetingly.

Thus, the world goes by La Croix-de-Maufras with such indifference that Phasie ponders the fact that her house is both a place of extreme solitude and extreme multitude, where the world passes by, yet no one stays. The crowd brought by the train is a peculiar one in that speed merges everything into a blurry mass, as Phasie explains:

Cela lui semblait drôle, de vivre perdue au fond de ce désert, sans une âme à qui se confier, lorsque, de jour et de nuit, continuellement, il défilait tant d’hommes et de femmes, dans le coup de tempête des trains, secouant la maison, fuyant à toute vapeur. Bien sûr que la terre entière passait là, pas des Français seulement, des étrangers aussi, des gens venus des contrées les plus lointaines, puisque personne maintenant ne pouvait rester chez soi, et que tous les peuples, comme on disait, n’en feraient bientôt plus qu’un seul. Ça, c’était le progrès, tous frères, roulant tous ensemble, là-bas, vers un pays de cocagne. Elle essayait de les compter, en moyenne, à tant par wagon: il y en avait trop, elle n’y parvenait pas. Souvent, elle croyait reconnaître des visages, celui d’un monsieur à barbe blonde, un Anglais sans doute, qui faisait chaque semaine le voyage de Paris, celui d’une petite dame brune, passant régulièrement le mercredi et le samedi. Mais l’éclair les emportait, elle n’était pas bien sûre de les avoir vus, toutes les faces se noyaient, se confondaient, comme semblables, disparaissant les unes dans les autres.¹⁶

While Baudelaire, in “À une passante,” was able to capture a fragment of individuality within the crowd, grasping the leg of a passerby and transforming it into a statue – a fixed element showing that which is impossible to fix, that which constantly *passes by* – Phasie does not retain anything.¹⁷ Although she seems to recognize a few faces, they merge with one another as soon as they appear so that “toutes les faces se noyaient, se confondaient, comme semblables, disparaissaient les unes dans les autres.” Here, the train crowd forms an entity that no *flâneur* may grasp, for it is conditioned by speed and geographical exactitude, which erase the local and singular identity of people in favor of one universal identity. Everyone is now grouped under one immense metropolis – and under the concept of “progrès” – that branches out everywhere so that “tous les peuples [...] n’en feraient bientôt plus qu’un seul.”

The notion of progress is tied to railway travel and to circulation, the latter being a key term for understanding Zola’s novel. In the French nineteenth century, whatever was part of

¹⁵ Schivelbusch 189.

¹⁶ Zola 52.

¹⁷ Baudelaire, “À une passante,” in *Les Fleurs du Mal* (Paris: Gallimard, 2004) 105.

circulation was regarded as healthy, progressive, constructive; and everything that was detached from it was perceived as threatening, subversive, decadent. The emphasis on circulation to bring about progress is strongly intertwined with Haussmann's urban design, described as based on "the dual concept of a circulatory and respiratory system."¹⁸ According to Haussmann, the intention behind this street system was to ensure public tranquility with great boulevards that allow the circulation of air and light, as well as to facilitate military units in efficiently restraining revolts.¹⁹ Of course, this system extends to the railway: whatever is not part of the general traffic and circulation of the modern world is left isolated like Phasie's house. For Schivelbusch, Zola criticizes the tyranny of circulation by showing department stores whose isolation results in mold growing on goods, or in the humidity and darkness of desolated shops. The same can be said of the train, since there are no separate "peuples" anymore; there is only one immense and unified crowd. The ones left behind – Grandmorin's body, Phasie, Misard, Flore, etc. – no longer exist, just like unsold merchandise; they are nothing more than forgotten pieces cast aside by the preferred circulation of commodity turnover.

On a similar note, the catastrophic crash of La Lison caused by Flore recalls Phasie's observation evoked earlier but goes even further in the portrayal of the railway. The many cadavers on the ground are perceived as anonymous when Misard and Flore look at them, in the hope of recognizing some faces:

Et [Misard], ainsi que Flore, regardaient les cadavres, comme s'ils espéraient les reconnaître, au milieu de la cohue des milliers et des milliers de visages, qui, en dix années, avaient défilé devant eux, à toute vapeur, en ne leur laissant que le souvenir confus d'une foule, apportée, emportée dans un éclair. Non! ce n'était toujours que le flot inconnu du monde en marche; la mort brutale, accidentelle, restait anonyme [...] et ils ne pouvaient mettre aucun nom, aucun renseignement précis, sur les têtes labourées par l'horreur de ces misérables²⁰

In the paradoxical absence of precision – "aucun renseignement précis" –, death becomes a blur and individuality disappears. Death, here, represents a fixity, a slow-down that the train and the system of circulation cannot afford. When the survivors escape from the rubble, Zola indicates that they show "un besoin fébrile de mouvement" despite the horror of their situation.²¹ Even though La Lison crashes and lies immobile on the ground, the rest of the world continues at a fast pace because circulation cannot be stopped, as it is now ineluctable. Several times in this chapter, Zola mentions how "L'inévitable était là" or "C'était l'inévitable" when talking about the crash, since circulation is now the underlying movement of society that cannot be stopped.²² It is the real force that disallows a state of rest, as is confirmed by the ending of the novel, to be discussed later; by end of the tenth chapter, when Flore's death fails to keep Misard from obsessing over Phasie's money but also does not stop circulation from starting up again a few hours after Flore's suicide:

¹⁸ Françoise Choay, *The Modern City: Planning in the Nineteenth Century*, tr. Marguerite Hugo and George R. Collins (New York: Braziller, 1969) 19.

¹⁹ Qtd. in Michel Ragon, *Histoire mondiale de l'architecture et de l'urbanisme modernes*, vol. 1. *Idéologies et pionniers, 1800-1910* (Brussels: Casterman, 1971) 96.

²⁰ Zola 343.

²¹ Zola 347.

²² Zola 333, 336.

Et, aux intervalles réglementaires, les trains passaient [...] la circulation venant d'être complètement rétablie. Ils passaient inexorables, avec leur toute-puissance mécanique, indifférents, ignorants de ces drames et de ces crimes. [...] On avait emporté les morts, lavé le sang, et l'on repartait pour là-bas, à l'avenir.²³

Here, death is a commodity that cannot circulate, or worse, that impedes circulation; as a result, crimes and dramas are no longer perceived as such. The most important detail of this chapter resides in the fact that Flore and Phasie's bodies are placed next to each other in the house, having been denied a proper funeral.²⁴ There, their dead bodies re-enact what they were doing when they were alive: witnessing the trains go by. Placing Phasie and Flore's bodies in a graveyard would have been a performative act inscribing them in rest, in fixity, outside of the movement of life. The absence of burials is no mere detail since it too contributes to circulation and the lack of stagnation or inactivity. Phasie's house, then, is the only possible place where their bodies can reside, for it is a location that exists through the railway system. Additionally, the end of the chapter mentioned earlier and its focus on "l'avenir" underlines how nothing matters except what happens "là-bas"—that is, in the vague and distant far away, where circulation can go on forever.

Nothing, in Zola's novel, can stop the train, and everything that is in its way ends up crushed by an inexorable mechanical force: "Et ça passait, ça passait, mécanique, triomphal, allant à l'avenir avec une rectitude mathématique, dans l'ignorance volontaire de ce qu'il restait de l'homme, aux deux bords, caché et toujours vivace, l'éternelle passion et l'éternel crime."²⁵ Humankind is pushed to the sides of the railroad, witnessing a force that strikes through space with *rectitude*, and that cannot be stopped with or without human cargo. The nineteenth century repeatedly perceived the train as a projectile, or even a missile, as if traveling on a train was like being shot through the landscape. This conception of a journey by train results in making the traveler, who sits inside that projectile, cease being a traveler and become, as noted in a popular metaphor of the century, a mere parcel. Relegated to a secondary role, a mere commodity of train travel, humankind cannot control the ferocious machine that appears to be the real protagonist of the novel. This train is the main actor of the entire nineteenth century, dominating throughout. In the final scene of the novel, Jacques and Pecqueux kill one another, leaving the train without a driver, now threatening to crash and kill the hundreds of soldier passengers supposedly destined for Paris and then to war. *Derailing* from any notion of naturalism, Zola recounts the train gaining velocity, described as an unchained monster that goes through stations at maximum speed, only partly visible because it disappears at random times.²⁶ The people who witness the events catch only a glimpse of the train because it is no longer composed of pure machinery, but of something intangible that makes it pass by in a blink. Hence the train, in Zola's description, becomes a ghost train:

²³ Zola 355.

²⁴ Zola 354.

²⁵ Zola 56.

²⁶ On that note, chance and randomness are key elements in Zola's novel. For Lumbroso, the writer treats randomness seriously as it plays a central role in the novel through many details that showcase pure moments of reality. Lumbroso explains: "La contingence empirique, ce 'hasard objectif' enveloppe le déterminisme causal d'un doute qui se loge dans les détails, là où se cache aussi le diable montrant deux modèles antithétiques dans le roman, l'un fondé sur la logique causale deductive, l'autre sur le hasard probabiliste." Lumbroso 162. This tension between causality and chance participates in creating a new understanding of the train as a causal, deductive machine that also contains a high degree of randomness. This new train embodies the concept of "chaosmos," that is, a terrifying machine whose exactitude threatens to malfunction, as we are about to see.

Mais, maintenant, tous les appareils télégraphiques de la ligne tintaient, tous les cœurs battaient, à la nouvelle du train fantôme qu'on venait de voir passer à Rouen et à Sotteville. On tremblait de peur: un express qui se trouvait en avant, allait sûrement être rattrapé. Lui, ainsi qu'un sanglier dans une futaie, continuait sa course, sans tenir compte ni des feux rouges, ni des pétards. Il faillit se broyer, à Oissel, contre une machine-pilote; il terrifia Pont-de-l'Arche, car sa vitesse ne semblait pas se ralentir. De nouveau, disparu, il roulait, il roulait, dans la nuit noire, on ne savait pas où, là-bas.

Qu'importaient les victimes que la machine écrasait en chemin! N'allait-elle pas quand même à l'avenir, insoucieuse du sang répandu? Sans conducteur, au milieu des ténèbres, en bête aveugle et sourde qu'on aurait lâchée parmi la mort, elle roulait, elle roulait, chargée de cette chair à canon, de ces soldats, déjà hébétés de fatigue, et ivres, qui chantaient.²⁷

The elusive nature of such a train ought to be questioned, as it contrasts with the mechanical certainty discussed earlier: here, at the end of the novel, the train is a beast devouring space, but also a beast that disappears and reappears, as if it were an illusion, a ghost, that departs from the mathematical rectitude and embraces uncertainty instead. More precisely, the train, by definition, should stay *on the rails*, not be roaming freely – its disappearance is then even more intriguing in the following description: “De nouveau, disparu, il roulait, il roulait, dans la nuit noire, on ne savait pas où, là-bas.” The fact that no one can track the train, know its location – although it follows a mostly linear pattern – belongs to the elusive nature of the machine, its ghost-like aspect, in Zola's fiction. The train is recognized as being *over there*. Such spatial vagueness, when understood in parallel with the trajectory of the train guided toward “l'avenir,” harks back to Max Nordau's notion of “interrègne,” a unique moment in history when traditions are shaken, trapped between an outdated century and the unpredictability of a new century about to come – an insight that corresponds to the date of the novel's publication (1890).²⁸

Such a catastrophic scene reminds the nineteenth-century reader that the train, despite having been accepted toward the end of the century as a comfortable and secure way of transportation, threatens to crash and malfunction. That hypothetical crash is even more ominous and spectacular for two reasons: first, it is conjectural, with the novel ending before it happens; and second, the train at the time is the apex of technical machinery. Since the locomotive advances toward “l'avenir avec une rectitude mathématique,” the implication is that this technical precision comes with an intensification that can lead to destruction. In brief, the more technically efficient the train is, the more menacing and destructive it is perceived to be. Hence, when Zola associates the technical efficiency of the train with its fictionalized unstable and ghost-like aspect, the connection results in pairing the functional and the dysfunctional to create the most threatening of situations: a supposed precarious future that – embedded in its contingent nature – contains both contradictory elements. Furthermore, this paradox is very much present in the idea of humankind being a mere parcel; it can only *bear witness* to what it does not control any longer, despite having been at the origin of its creation.

²⁷ Zola 425-26.

²⁸ “Une période de l'histoire touche manifestement à son terme, et une autre s'annonce. Toutes les traditions sont traversées d'une déchirure, et demain ne semble pas vouloir se rattacher à aujourd'hui; ce qui existe chancelle et s'écroule [...]. Les idées qui jusqu'à présent ont dominé les esprits sont mortes ou expulsées comme des rois détrônés; des successeurs légitimes et des usurpateurs se disputent l'héritage. En attendant, l'interrègne existe avec toutes ses horreurs: confusion des pouvoirs, perplexité de la foule privée de ses chefs, despotisme des forts, surgissement de faux prophètes [...]. On guette avec impatience ce qui doit venir, sans pressentir de quel côté cela viendra et ce que cela sera.” Max Nordau, *Dégénérescence*, vol. I. *Fin de siècle – Le Mysticisme* (Paris: Félix Alcan, 1894) 11-12.

The ending of the novel and its puzzling ambiguity are also intertwined with naturalism. While Zola outlines the scientific nature of his fictional method, his novels often present contrasts with both the scientific point of view and the reliability of facts.²⁹ This tension is already present in Denizet, the examining magistrate in *La Bête humaine*, whose methods are exact and scientific but whose conclusions are invariably wrong. For Denizet, Cabuche is the obvious killer of Grandmorin, an assertion based on facts that turn out to be wrong; but the magistrate cannot accept them as such. Both facts and detailed explanations confound a case that remains unsolved despite scientific and methodological rigor: “Et, dans son idée fixe du crime, c’était le juge qui perdait pied, par trop de finesse professionnelle, compliquant, allant au-delà de la vérité simple.”³⁰ Zola’s portrayal of Denizet shows that the abundance of facts and accurate details do not necessarily equate the truth – and the same goes for naturalism as a literary movement.

For Zola, naturalism combines the representation of social interactions with the scientific examination of the causes of such interactions. The novelistic form enables the author to make use of an observational tool from which fictional writing can emerge and display social complexities. In the preface to *La Fortune des Rougon*, the author explains how the social groups depicted in the novel become puppets when under the control of the author:

Et quand je tiendrai tous les fils, quand j’aurai entre les mains tout un groupe social, je ferai voir ce groupe à l’œuvre, comme acteur d’une époque historique, je le créerai agissant dans la complexité de ses efforts, j’analyserai à la fois la somme de volonté de chacun de ses membres et la poussée générale de l’ensemble.³¹

In this extract, the scientific vocabulary (social group, historical period, analysis) is paired with a more artistic vocabulary (actor, creation, will), reflecting the juxtaposition of art and science in the author’s work. From this explanation we may infer that Zola perceives himself to be a scientist who observes phenomena, which he transforms as the text begins to form. In a way, the text becomes a scientific laboratory through which one can experiment and then understand what underlies society. This analogy to scientific methodology goes even further when Patrick Bray claims that: “By affirming the experimental aspect of fiction writing, Zola shows that naturalism does not blindly copy or assimilate science, but practices it; carefully planned novels simulate real-life situations just as laboratory experiments selectively test one hypothesis at a time.”³² Naturalism thus partakes in experimentation and hypothesis – a situation which, interestingly, coincides with the status of the train depicted in the novel.

As previously mentioned, *La Bête humaine* ends on a hypothetical note, a dramatic and unresolved situation whose finality, paradoxically, seems already determined. Zola’s naturalism brings the inexplicable and the explicable together, in the name of experimentation. The ghost-like train is a writing experiment the author uses in order to hypothesize the ending of the nineteenth century and the upcoming twentieth. In this case, the ghost-train and the conjectural ending are closer to the truth of society than Denizet could ever hope to be, for they reflect the uncertain and worrisome reality of the end of the century, and the effects of the train on all.

²⁹ Leo Braudy, “Zola on Film: The Ambiguities of Naturalism,” *Yale French Studies* 42 (1969): 68.

³⁰ Zola 140.

³¹ Émile Zola, Préface [1871], *La Fortune des Rougon* (Paris: Gallimard, 1981) 23.

³² Patrick M. Bray, *The Novel Map: Space and Subjectivity in Nineteenth-Century French Fiction* (Evanston, IL: Northwestern University Press, 2013) 151.

In effect, the ending of Zola's novel questions the regime of representation and the ways one can display what is yet to come, but whose effects are already palpable. There is no doubt that the train embodies the compromise found in naturalism between the representative regime of art and a literary narration that would be antirepresentational.³³ On one hand, the train is the strongest tangible force of the nineteenth century while, on the other hand, it is a machine that the human mind has yet to grasp and analyze thoroughly. If Phasie cannot retain anything from what she sees, as mentioned earlier, it is due to the high speed of the train but also because, as Denizet's situation reveals, any fixed image, or any thorough analysis, cannot account for what the railway truly is. The truth of *La Bête humaine* is nothing less than the truth of France in the 1890s: that is, a time when the human mind could not make sense of the effects of the railway. Thus, the combination, within Zolian naturalism, of representation and non-representation helps pave the way for an accurate account of his time. The emergence of the railway in the French nineteenth century deeply impacted people's perception of the new technology, as it was often correlated with the image of a beast about to devour everything in its way. Zola's adoption of naturalist aesthetics, in this specific context, adequately conveys what it is to be an observer whose observation cannot solely account for the magnitude of the new phenomenon.³⁴

The advent of the railway marks a moment in time when the world was becoming so much more scientific and methodical that the human mind could no longer fully control or understand what it brought to fruition. Zola's naturalism gives access to the truth of the modern world through fiction, that is, through the acknowledgement of the limits of observation. In a way, the writer opposes James Cook's geographic method, according to which the world is now an observable entity containing elements that ought to be listed under a conceptual grid of European knowledge.³⁵ Zola's naturalism showcases how the railway is a phenomenon that both epitomizes scientific *savoir-faire*, but also breaks with it, since observing the world from a train window is not enough to encompass what that same world is becoming. While Ronald Robinson considers the train as a technology that shaped and changed empires, I argue that the railway also changes our conception of the *empirical*.

³³ "La description du boudoir de Nana, comme celle des fleurs du Paradou, des étalages des Halles ou des vitraux du *Rêve* applique, dans l'«égalité» des sujets, l'identité du principe d'expression. Zola, qui ne s'est jamais posé le problème d'une poéticité de la prose, obéit encore au principe de symbolicité qui fonde la poétique romantique, il fait parler les choses à la manière de *Notre-Dame de Paris*. Et ce principe d'expressivité vient doubler sans problème la narration à l'ancienne, comme la rime de l'idéal en toute réalité. Le naturalisme donne à la forme romanesque le moyen d'être la forme du compromis: compromis entre les principes contradictoires de la poétique nouvelle, et, par-là, compromis entre l'ancienne et la nouvelle poétique, entre le primat représentatif de la fiction et le principe antireprésentatif d'expression." Jacques Rancière, *La Parole muette: Essai sur les contradictions de la littérature* [1re édition 1998] (Paris: Fayard, 2010) 121-22.

³⁴ For more on the importance of observation and sight in the nineteenth century, see Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, MA: The MIT Press, 1990).

³⁵ See Derek Gregory, *Geographical Imaginations* (New York: Blackwell, 1994); Timothy Mitchell, "The World as Exhibition," *Comparative Studies in Society and History* 31 (Spring, 1989): 217-36; Martin Heidegger, *The Question Concerning Technology, and Other Essays* (New York: Harper and Row, 1977). For Derek Gregory, the eighteenth-century explorer and geographer James Cook symbolizes a shift in geographic understandings of space. More precisely, Cook participates in the idea of a "world-as-exhibition" or what Martin Heidegger calls "the age of the world picture." Observing the world was undertaken in such a way that it becomes an object placed before the viewing subject, and this world is made intelligible as a totality being captured. The empirical method of Cook led to the beginning of classification and observation as a way to understand the world. My point here is that the advent of the railway is of such magnitude that the effects it brings to the human mind imply that the former method of observing and classifying the world no longer allows people to comprehend it. The ending of Zola's novel shows the train leaving the observer's sight, and thus allowing no possibility of relating to the truth of the event by way of observation.

Observation, in Zola's novel, no longer has control over what is observed. In the catastrophic chapter where La Lison crashes due to Flore's obstructing of the tracks, Zola describes the upcoming crash as "l'inévitable," as that which nothing can prevent. However, when Lantier first sees the obstacle on the tracks, his observation appears vague, absent-minded – that is, in contrast with the certainty of the crash: "Jacques, à ce moment suprême, la main sur le volant du changement de marche, regardait sans voir, dans une minute d'absence. Il songeait à des choses confuses et lointaines, d'où l'image de Séverine elle-même était évanouie."³⁶ Detachment and scientific objectivity, although crucial in empirical research and naturalist aesthetics, cannot portray the overwhelming reality of the train. The speed and efficiency of the train are of such magnitude that the human mind fails to follow. In other words, the train brought scientific efficiency and exactitude to such high levels that the scientific methods themselves fall short of depicting the railway phenomenon. And yet, despite Lantier's confusion, the novel depicts him a few lines later in full understanding of the situation: "Et Jacques, d'une pâleur de mort, vit tout, comprit tout, le fardier en travers, la machine lancée, l'épouvantable choc, tout cela avec une netteté si aiguë, qu'il distingua jusqu'au grain des deux pierres, tandis qu'il avait déjà dans les os la secousse de l'écrasement. C'était l'inévitable."³⁷ Lumbroso mentions Lantier's absent mind and sudden acute concentration as the result of a skeptical analysis on Zola's end, as a compromise made by the author between randomness and fate, that is, between the understanding of a phenomenon and its contingency that prevents further understanding.³⁸ I would argue that the interesting contrast between Lantier's two mindsets reveals that the only thing now observable is the inevitability of a phenomenon that surpasses observation. The overwhelming power of the train leaves humankind no other choice but to observe a phenomenon that, without a doubt, supersedes everything else. Just like the ghost-train at the end of the novel, the best way for Zola to depict the railway is to narrate its contrasts, ambiguities, and contradictions that only an unrestricted version of naturalism can show.

Thus Zola's *La Bête humaine* fits the author's renewed conception of naturalism toward the end of the century when, in 1894, he embraces the symbolist idea that aims to "donner un son à la signification muette des choses."³⁹ In such a context, Zola's portrayal of the (ghost) train presents the real not as such, but as a vision more convincing than reality itself, a fictional vision which paradoxically helps to provide a more concrete and truthful account of the railway than a retelling of historical facts.⁴⁰ The fictionalized and unreal events that unfold at the end of Zola's novel highlight a new railway mindset that, without the vagueness and strangeness of literary writing, would have been lost and impossible to conceive. If Zola did provide "un son à la signification muette des choses" it would not be the infamous and innocent *Choo-Choo* but rather the unrealistic and yet more truthful *Chew-Chew*, that is, the sound of a train devouring everything that comes its way, be it space, time, and the French and Francophone world.

³⁶ Zola 336.

³⁷ Zola 336.

³⁸ Lumbroso 161.

³⁹ "J'utilise aussi les harmonies obtenues par le retour des phrases, et n'est-ce pas le meilleur moyen de donner un son à la signification muette des choses? Symboliste! Je crois bien que je le suis." Émile Zola, *Écrits sur le roman*, éd. Henri Mitterrand (Paris: Le Livre de Poche, 2004) 315.

⁴⁰ "Le vrai peut quelquefois n'être pas vraisemblable. Le réaliste, s'il est un artiste, cherchera, non pas à montrer la photographie banale de la vie, mais à nous en donner la vision la plus complète, plus saisissante, plus probante que la réalité même." Guy de Maupassant, "Le roman" [préface de 1887], *Pierre et Jean* (Paris: Albin Michel, 1984) 14. The phrase "Le vrai peut quelquefois n'être pas vraisemblable" is taken from Boileau, *Art poétique* III, 48.