METAHISTORICAL NARRATIVES arepsilon SCIENTIFIC METAFICTIONS

Chimamanda Ngozi Adichie, Ion Barbu, Edwidge Danticat, Louise Erdrich, Daniel Kehlmann, Barbara Kingsolver, China Mieville, Toni Morrison, Thomas Pynchon, Neal Stephenson, Barry Unsworth, Sarah Waters, and "punk" subgenres in speculative fiction. Past-tomorrows and future-yesterdays: Metahistorical Narratives & Scientific Metafictions is a foray into spatial and temporal grids explored by the literary production of the last forty years. Set at the crossroads of several cultural tensions, the metahistorical nature of contemporary narratives and metafictional approaches to scientific discourses in recent fictions problematize concepts of history and practices of science. By means of a radical fragmentation, ramification, and quantification of the plot, the selfreflexivity inherent to metafiction redoubles on a metahistorical hetero-reflexivity. Likewise, the pluridiscursivity inherent to historicity recoils upon the pluridiscursivity of the novel.

"this fiction [...] portrayed the *nature* of narrative history rather than the specific facts of historical accounting." Amy J. Elias

"the most arresting, ambitious, and significant fiction written in English in the past four or five decades is, in this way, metahistorical: it summons, fractures, and re-invents history." Susan Strehle

"extensive engagement with 'real' history and fictional supplement demonstrates how abstract notation systems (fictions) are complexly embedded in materiality." Sherryl Vint

Giuseppe Episcopo is a Teaching Fellow in Italian literature and language at the University of Edinburgh and has a PhD in Modern Philology (University of Naples Federico II). He edited and translated into Italian Fredric Jameson's Brecht and Method and has published on Stefano D'Arrigo, Carlo Emilio Gadda, William Goyen, Primo Levi, Thomas Pynchon, Federigo Tozzi, Juan Rodolfo Wilcock in books and journals. Giuseppe Episcopo has a forthcoming monograph on Stefano D'Arrigo and Thomas Pynchon entitled L'eredità della fine.

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Metahistorical Narratives Scientific Metafictions

A Critical Insight into the Twentieth-Century Poetics

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Metahistorical Narratives & Scientific Metafictions

A Critical Insight into the Twentieth-Century Poetics

Edited by Giuseppe Episcopo

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If indeed one construes interpretation as a rewriting operation, then all of the various critical methods or positions may be grasped as positing, either explicitly or implicitly, some ultimate privileged interpretive code in terms of which the cultural object is allegorically rewritten.

Fredric Jameson

Francisco Collado-Rodríguez

Historiographic Metafiction, Thermodynamics and the Middle That Was Not Excluded in Thomas Pynchon's *The Crying of 49*

1. The Postmodern Meta-Physical Reality or the Subversion of Traditional Paradigms

Pynchon's fiction frequently invites his readers to find an underlying order behind the apparent chaos and paranoia of his literary universe. Consistently, his fiction offers critics many clues inviting them to initiate a literary quest for ultimate knowledge. If the quest for elusive meaning is a central motif in most of Pynchon's works, this chapter, centered on The Crying of Lot 49, also reads as one more quest, but as a critical one where historiography, scientific discourse, and religion melt to draw a metafictional portrait of human life as textually trapped in a universe where the categories imposed by those traditional paradigms start crumbling down. Even if it is only the second novel written by a young Thomas Pynchon, The Crying of Lot 49 offers in itself a complex critical analysis of the human capacity to re-create realities ad infinitum by paradoxically establishing reality itself as a puzzling zone that exists beyond the physical experiences captured by our senses. Thus, in the following pages one of the main arguments is that ultimate truth always escapes in the act of reading The Crying of Lot 49, a concept that, by extrapolation, critics would eventually recognize as one of the most relevant marks of the postmodern condition (see Matthews 2012, 89-90).

Despite the inherent difficulties of searching for wholeness and meaning in the writings of an author who champions epistemological undecidability, I contend in these pages that Pynchon's second novel structures the writer's apparent chaotic universe in terms associated to post-Newtonian physics, and more specifically to quantum theory, in order to ridicule the categorical tendency to understand life in the dividing binary terms that have structured Western traditional ideologies (see Brown 1997: 1-28; cf. Collado-Rodríguez 1999). Such categorical propensity that always results in the privileged position of some—the puritan Select—due to the marginalization of others—the condemned Preterite—becomes the main target of Pynchon's narrative strategies in this and posterior works. In order to carry his demolishing project against political and social conservatism, the astute writer undermines the notion of truth and counterpoises it to the notion of invention by choosing a few personages and events that historiography has validated as authentic to counterbalance them with other unknown characters, the underprivileged shadows of society, apparently invented figures who take protagonist Oedipa Maas and the reader into the territory of the reject, the margins of social discourse. In the restless decade of the 1960s, Oedipa becomes trapped, as happens to narrator and reader, in the apparent necessity to choose between true and false while carrying out a peculiar philosophical—epistemological—but also physical quest. Along the pages of the condensed novel, the notion of textual entrapment is strategically presented as a process of discursive structures which reflect one another, centered on the role played by Maxwell's demon in the field of thermodynamics, a core device from which protagonist and readers alike are forced by the writer to ascend onto the religious paradigm that predicates the Christian teleological promise of the Final Judgment, where a part of the humankind will be saved while many others will be damned. As the following pages will show in more detail, along his protagonist's complex quest for meaning, history, religion, and thermodynamics become Pynchon's chosen paradigms to combine with his strategic use of metafictional practices. By so doing, eventually Oedipa and readers are led to enter the uncertain, liberating, and anti-categorical territory where Aristotelian middles do not have to be excluded and social margins do not need to be rejected anymore. In other words, The Crying of Lot 49 offers, in a very limited number of pages, one of the first sustained literary rejections of traditional binary codification and the entrance into the postmodern territory of the hybrid (cf. Lyotard 1979).

However, Oedipa's complex adventure does not represent Pynchon's first attempt to subvert traditional thinking by using metastructures as ideological tools. Slow Learner, the collection of early short-stories that Pynchon edited and reprinted in 1984, ends with "The Secret Integration," a story first published in 1964 but also a clear thematic predecessor of *The Crying of Lot 49*. The protagonists of the story are innocent white kids who have to endure their first painful realization of American racism. Ironically, as he discloses in the Introduction to Slow Learner, Pynchon moves the original Long Island setting of his tale to New England, the heart of American Puritanism (Pynchon 1984, 23). There the children become aware of their own parents' racist attitudes against African American people. However, what is of interest for our contention here, is the fact that the children's response to what they feel to be an injustice is not to reject in the open their parents' behavior but to create, within their own diegetic world, another child, a black boy who will become an integral part of their lives. The creation of an invented being within the diegetic invented world of a short-story is in itself a metafictional act: it is the invention within the invention, a strategy that may induce the attentive reader to think about or, at least, to intuit the capacity that human languages have to create even the reality we have traditionally understood to be something true, as an objective realm, out there and fully perceived by means of our senses and reason. The issue, of course, also offers a clear Derridean reading—sometimes explicitly pointed out with reference to The Crying of Lot 49 (Petillon 1991, 158-9). The pervasive presence of the linguistic trace demands our aspiration to the myth of the origins as guarantor of reality and social order, but in 1964 Derrida has not published De la Grammatologie yet and Pynchon's creative white kids do not intend to look backwards to any mythical origin but forward to a new society where non-white boys may also be fully integrated into their innocent lives. And it is in their innocence, as well as in their metafictional capability to create a better world out of discourse, and in their ethical (and post-Newtonian) attempt to integrate black and white where the protagonists of "The Secret Integration" constitute a clear thematic anticipation and subversive version of Oedipa Maas, one of the most extensively studied Pynchonian characters. Oedipa is an innocent woman who, at the beginning of the story, does not realize that her understanding of reality is trapped by traditional ideologies. But she becomes involved in a quest to know the truth, eventually feeling that perhaps she should project a world to escape from her modernist tower of solipsism (Pynchon 1966, 56), a notion that even opens the way to a Lacanian evaluation of the protagonist's paranoia (Cullum 2011, 5-8). Then, as the children of "The Secret Integration" did, she progresses in her internal quest with the help of metafictional structures that exemplify the postmodern assumption that we are all trapped in discursive webs named with different labels, webs that impose the ideologies we live by.

At the moment of the publication of *The Crying of Lot 49*, in 1966, classic or Newtonian science, traditional historiography, and Christian religion were still understood by many Westerners as different but legitimate paradigms that provided us with answers to know the truths of life and understand reality. However, the postmodern condition was already starting to demolish human confidence in such and other traditional paradigms, replacing any possible complacent understanding of reality with the notion of our ultimate incapacity to know it while also denouncing the traditional grand narratives of human knowledge as ideological supporters of the conservative status quo. Oedipa's subversive quest offers, in only a few pages, an impressive attempt to evaluate, reject, and progress from such traditional paradigms. Such a feat is accomplished by showing the attentive reader that the paradigms under scrutiny in Oedipa's quest are made by and resemble human—not divine or mythic-creation. Science, history or religion are disclosed along the book as products of a discourse inescapably trapped in binary structures. If in "The Secret Integration" Pynchon focused his criticism on the pair white/black, his second novel is a more complex artifact that evaluates, questions, and finally dismisses the pervasive traditional ideology that divides reality categorically in truth or false (historiography), hot or cold (thermodynamics), and saved or damned (Christian religion). Oedipa, as her innocent predecessors did in "The Secret Integration," shall have to recognize, first of all, the existence of the binary traps, and then resort to pure faith expecting the final revelation that may erase all binary limits. However, her own quest becomes, thanks to author Thomas Pynchon, also a textual trap for the reader.

2. Oedipa's Quest as Literary Parody and the Rule of Binary Structures: Historical Truth and Hutcheon's Notion of Historiographic Metafiction

Some of the earliest and most relevant critics of the 1960s and 1970s postmodern novel in English (Tony Tanner, Patricia Waugh, Brian McHale...) soon recognized Pynchon's second novel as one of the most outstanding representatives of the new cultural and political period, even if some still saw in Pynchon's book the strong imprints of the modernist ethos. Oedipa's quest became the metaphor of the search for the new America, a process carried out thanks to the disclosure and questioning of old conservative values linked to economic liberalism (or excessive capitalism) that, with the help of authorial irony and metafiction, were to be denounced and demoted in the pages of the new fiction. More specifically, it is in the critical work of Canadian critic Linda Hutcheon where we can find two notions that, applied to Pynchon's second novel, open a revelatory path to the book's strongly metafictional structure and, at least, to some of its ideological connotations.

The first critical notion of interest to this paper is Hutcheon's updating and redefinition of the concept of artistic parody. In her book A Theory of Parody: The Teachings of Twentieth-Century Art Forms (1985), this critic contends that parody is a non-transhistorical concept that should be redefined for the analysis of twentieth-century literature and become also emptied of any need to hold any humorous ingredient. Parody is for the Canadian critic intramural (it does not refer to nature or to the world outside art but to earlier art) and should not be confused with other critical concepts such as quotation, pastiche, or satire. Early in the Introduction to her book, she offers a tentative definition of the term: Parody "is a form of imitation, but imitation characterized by ironic inversion, not always at the expense of the parodied text [...] Parody is, in another formulation, repetition with critical distance, which marks difference rather than similarity" (Hutcheon 1985, 6). The concept, in this sense, revises, replays, inverts, and transcontextualizes previous works of art, their themes or motifs (11). As the case is in the following analysis of The Crying of Lot 49, parody becomes in it an effective tool to replay and subvert, more specifically but not exclusively, the well-known modernist structure of the quest: Pynchon's ironic inversion works on the typical

pattern of the questing hero that American anthropologist Joseph Campbell had structured in his influential book *The Hero With a Thousand Faces* (1949) by applying Freudian and Jungian theories to an extensive corpus of folklore and mythological stories. As the following pages will show, Pynchon's parody of the modernist mythic quest to discover a truth that was already latent in the protagonist's mind (*know thyself*), becomes a powerful rhetorical instrument to invalidate the traditional frontiers between truth and falsehood. In addition, the secluded Long Island writer chose to apply his irony on traditional historiography with the aim of questioning the same powerful binary structures of Western discourse. Interestingly, Linda Hutcheon's posterior work also offers a second critical notion useful for the evaluation of *The Crying of Lot 49: historiographic metafiction*.

This second notion was elaborated and extensively discussed by the Canadian critic in two books she published by the end of the 1980s, A Poetics of Postmodernism (1988) and The Politics of Postmodernism (1989). In the latter we find a more detailed discussion of the usefulness of the concept for the criticism of ideologies. But it is in the first book that we find Hutcheon's influential definition of a notion that amalgamates the role of historiography with metafictional practices:

By [historiographic metafiction] I mean those well-known and popular novels which are both intensely self-reflexive and yet paradoxically also lay claim to historical events and personages: The French Lieutenant's Woman, Midnight's Children, Ragtime, Legs, G., Famous Last Words. [...] its theoretical self-awareness of history and fiction as human constructs (historiographic metafiction) is made the grounds for its rethinking and reworking of the forms and contents of the past. (Hutcheon 1988, 5; emphasis added)

In *The Politics of Postmodernism*, after having discussed the postmodern interest in questioning traditional values and discourse, in a chapter entitled "Postmodernist representation" Hutcheon centers her analysis on the postmodern awareness of the premise that every human interpretation is always culturally or discursively mediated. She stresses the importance of the act of enunciation, as well as the (Derridean) impossibility to ever reach the referent, and discusses some modernist and poststructuralist notions that find their

correlate in the literature written in the 1960s and 1970s. Along the pages of her book, the critic stresses the role of the emitter of discourse as being already ideological and the fact that social and political values are neither natural nor universal. However, Hutcheon also points out that when writers, photographers or other post-modern artists disclose and deconstruct traditional values, they are still working within the system—that is to say, they are already trapped by their use of language or other conventional mechanisms of representation. Therefore, artists need to question even the validity of their own art to be convincing in their argumentation and they do so, in the case of literature, by resorting to historiographic metafiction, a strategy that traditional critics (and, one has to assume, the general public) may find difficult to understand or even value on account of its apparent lack of realism or verisimilitude:

The equivalent on the literary scene has been the hostile response of some critics to the mixing of historical and fictive representation in historiographic metafiction. It is not that the fact of the mixing is new: the historical novel, not to mention the epic, should have habituated readers to that. The problem seems to reside in its manner, in the self-consciousness of the fictionality, the lack of the familiar pretense of transparency, and the calling into question of the factual grounding of history-writing. The self-reflexivity of postmodern fiction does indeed foreground many of the usually unacknowledged and naturalized implications of narrative representation. (Hutcheon 1989, 35)

However, Hutcheon does not fall totally into the trap of cultural relativism. For this critic the past did exist, independently of our apparent incapacity to know it as it happened. Historiographic metafiction, she argues, accepts a philosophical realist view of the past but then proceeds to confront it "with an anti-realist one that suggests that, however true that independence may be, nevertheless the past exists for us—now—only as traces on and in the present. The absent past can only be inferred from circumstantial evidence" (73). Thus, it is in such confrontation between the factual and the invented that the sharp traditional limits of truth and falsehood are scrutinized and contested. What a novel like *The Crying of Lot 49* does, paraphrasing Hutcheon again, "is make overt the fact-making and meaning-granting processes" (77): Oedipa's quest, as shall be now discussed in more detail, is a postmodern parody of genres or

literary structures such as Campbell's pattern of the monomyth or the California detective novel, but its ultimate aim is the quest itself and the impossibility to escape from the same discursive structures that shape traditional Western thinking: Pynchon's book eventually becomes a literary demonstration that the medium is the message (cf. Andersen 2013).

The protagonist of the story, Mrs. Oedipa Maas, is per se parodically defined by her own name. However, as early critics of the novel were soon to point out, Pynchon would have given Oedipa her name not so much because of the ill-fated and incestuous Oedipus Rex described in Sophocles' tragedy, but on account of the well-known episode in which Oedipus in his journey to Thebes (still unaware that he has already killed his father) encounters the Sphinx and is asked by this monster to answer the menacing riddle: "What walks on four feet in the morning, two in the afternoon, and three at night?" When the fated hero gives as answer the term "Man," he saves his life but also brings about the female monster's suicide (see Moddelmog 1987, 243). However, playful Pynchon subverts the classic myth by offering the role of riddle-solver to a female who is not a king's child but a middle-class Republican housewife. The riddle she is expected to solve apparently consists of disentangling the large number of assets and properties that her former lover and recently deceased Pierce Inverarity had. However, while trying to find out the exact wealth of corporate America metaphorically represented in Inverarity's fortune, her attempts to solve the riddle eventually take her to the recognition of the other side of America, the invisible and disposed part represented by dark Trystero and their illegal postal system.

It is the nature of her riddle-solving quest that transforms Oedipa also into a parodic detective in the State of California, the prototypical setting for the twentieth-century American detective novel and its Hollywood and TV adaptations. Chandler's Philip Marlowe or Hammett's Sam Spade are famous hard-boiled detectives who precede Oedipa's rambling about many streets in LA or in San Francisco. And it is precisely in this new type of detective that Oedipa represents where we find one of the most corrosive parodic effects of Pynchon's second novel. At the beginning his protagonist is innocent—she knows nothing, not even the nature of her quest. Physically, she looks like a weak woman—no Marlowe or Spade type—but her detective findings will take readers to the

disclosure and questioning of the capitalist myth of the white rich man—as represented in the figure of the deceased Inverarity. Together with her name, her former lover's and many other characters' names in the novel also offer an extra touch: they are apparently "meaningful" names that, out of their comic or even significant connotations, play to enhance both the parodic and the metafictional undertones of the story.

As mentioned earlier, the very nature of Oedipa's questing adventure also substantiates her parodic role as riddle-solver and non-hardboiled detective: she follows a path staged by some of the most well-known motifs studied by Joseph Campbell in his pattern of the hero of the monomyth, a path saturated with reports on real and invented historical figures and English playwrights. As regards Oedipa's adventure, I contend that the parodied monomyth pattern functions in a double and paradoxical sense: On the one hand, it installs the protagonist as heroine of a detective adventure where she shall have to gain access to and evaluate a large amount of information coming from different sources; her Campbellian "Call to Adventure" (Campbell 2004, 45) is activated when she receives, at the beginning of the book, a letter stating that she has been named executor of Pierce Inverarity's large properties and assets. Her questing aim will, thus, be the disclosure of an intellectual truth. In this sense, it follows the typical expectations of a modernist protagonist whose main objective is to come to terms with the meaning of life. But, on the other hand, her adventure will not be merely mental or intellectual; it will also be physically painful some times, especially in the last stages of her search for meaning. The quantity and quality of the information she receives is too much for her (and for the reader). Eventually, the complex process to obtain the truth—any truth—becomes the ultimate intellectual aim of the quest, displacing her original search as executor of Inverarity's will for any sound knowledge about the dark Tristero. However, Oedipa approaches the end of her adventure when she finally realizes that every "access route to the Tristero could be traced also back to the Inverarity state" (Pynchon 1966, 117); in Campbellian terms, the answer had been there, conceited, since the beginning of the quest. But previous to her realization that she might be trapped in a discursive circle, Oedipa has already felt that she is being deceived, when not abandoned, by all men who come to her rescue—parodic male figures who structurally respond to

the motif Campbell denominates "The Meeting with the Goddess" (Campbell 2004, 100), here men such as Oedipa's husband Mucho, lawyer and co-executor Metzger, or paranoid shrink Dr Hilarious. As corresponds to the Campbellian hero, Oedipa has also crossed into the "zone of magnified power" that represents metaphorically the dive into the hero's unconscious (see Campbell 2004, 71-82). The crossing of the symbolic threshold supposes that the protagonist is leaving behind her previous life as housewife when she trespasses the frontier into the Pynchonian San Narciso Valley. Notice the parodic demotion of the new type of monomyth hero the novel describes:

She rode into San Narciso on a Sunday, in a rented Impala. She looked down a slope [...] on to a vast sprawl of houses which had grown up all together [...] from the dull brown earth; and she thought of the time she'd opened a transistor radio to replace a battery and seen her first printed circuit. The ordered swirl of houses and streets, from this high angle, sprang at her now with the same unexpected, astonishing clarity as the circuit card had. Though she knew even less about radios than about Southern Californians, there were to both outward patterns a hieroglyphic sense of concealed meaning, of an intent to communicate. (Pynchon 1966, 14-5)

The lands and seas of mythic adventure where classic heroes like Ulysses, Aeneas, Hercules or Beowulf completed their quests are here replaced by a Californian landscape that ironically resembles an artefact for communication—the radio—in the eyes of a female who starts her puzzling quest on a Sunday—without keeping the Sabbath, as the biblical God did after creating the World (cf. Miller 2013, 227). Furthermore, she "rides" not a horse, as the heroes of yore, but a car named after an African antelope that moves by leaps, in clear symbolic anticipation of our heroine's "leaping progress." Her attempts to disclose the foreseen hieroglyphic meanings waiting for her along her quest crystallize in a motif that Campbell denominates "The Road of Trials" (Campbell 2004, 89), here a number of intellectual challenges that force Oedipa to find her way along a maze of clues that she perceives—or seems to perceive—in a number of interviews with different people who lead her to historically accurate or invented events, personages, and literary texts. The trap of binary thinking, manifested in her necessity to discriminate the "true" from the "false" in the information

she acquires, is made explicit by Pynchon's recourse to Hutcheon's notion of historiographic metafiction. The examples of personages who can be traced in the pages of History abound. Such are the cases of Spanish painter Remedios Varo, Czar Nicholas II of Russia, the powerful Thurn & Taxis family, William of Orange, or the Catholic Holy Roman Emperor Charles V, among others. But real events where these personages played a part become soon mixed with invented battles and admirals (Pinguid and Popov, 32-3; see Hume 146-8), non-existent groups such as the Peter Pinguid Society or the sect of the Scurvhamites, and pseudo-historical figures such as a Jacobean playwright called Richard Wharfinger, whose play The Courier's Tragedy, in an apocryphal version (!), raises Oedipa's interest in the Tristero (Pynchon 1966, 43-51). Many pages shall have to pass till the reader may reach a pseudo-historical account of the Tristero's birth and expansion: its leader, Hernando Joaquín de Tristero y Calavera, The Disinherited, will soon choose the protective black color of the night for himself and his followers, "the only thing that truly belonged to them in their exile" (111). Gradually, Pynchon constructs an impressive net of historical and pseudo-historical information where limits between the truth and the false, the possible and the impossible are continuously trespassed to the point that they melt in a long list of apparent coincidences and events that happened in Italy but resemble what happens in America or, even more far-fetched events, motifs and situations reported in Wharfinger's invented and apocryphal play, which resemble what happens in Oedipa's diegetic world. All along the protagonist's new quest for sound historical information about the Tristero she finds so many clues in stories, reports, or interviews that it provides her and the readers with an information overload. As a result, the ultimate message—if there is any—is always deferred: insistently the capacity to communicate something useful is put at stake and Oedipa's quest becomes saturated with an increasing amount of noise, this being the term employed in information theory to refer to the increase of entropy in the communication system. Obviously, the notion also offers a clear indication that the scientific paradigm is another one of the targets of Pynchon's project.

3. Oedipa's Role as Religious Maxwell's Demon: from Thermodynamics to Chaotic Probability and Digital Deity

Classic science and, more specifically, thermodynamics constitutes the second relevant paradigm to be interrogated along Oedipa's adventure. This branch of science is to a large extent responsible for the development of the Industrial Revolution, which in itself gave economic support to the ideological project of the Enlightenment. The study of thermodynamic processes requires a calculation of the temperature existing in a system, a necessary value for the production of movement and work. What it means, in plain terms, is that in any physical system the factor that determines its usefulness is the relation existing between cold and hot molecules. The more heated molecules a system holds, the more work can be developed in it.

In one of the passages most puzzling and often quoted from The Crying of Lot 49, Oedipa is told that somebody, ominously called Nefastis, owns a machine that proves the validity of Maxwell's thought experiment known as "Maxwell's Demon." The experiment was actually hypothesized by the Scottish scientist Clerk Maxwell, who in 1871 imagined the existence of a "demon" that might have the capacity to sort out or discriminate the cold from the hot molecules in a closed system, represented in a box. If all the hot molecules in the box could be relocated on a specific part of it, the result would be an area of perpetual movement that would overcome the effects of the Second Law of Thermodynamics or Entropy, promulgated in a first mathematical version by Rudolph Clausius only a few years earlier, in 1865. Clausius' formulation eventually meant a blow to the scientific optimism inherited from the project of the Enlightenment because it addressed the necessity to evaluate the loss of energy which apparently happened in all thermodynamic interactions. The German scientist concluded that the entropy of the Universe tends to a maximum, which on lower scales means that the energy available for work in any close system is always decreasing. That is to say, he was setting the bases to explain in scientific terms the fact that life tends to erosion, deterioration, and ultimate disappearance, a pessimist understanding of reality that, in scientific terms, would not be contested till the advent of new theories many years later (see Davis and Gribbin 1987, ch. 10; and Prigogine and Stengers 1984, Book 3).

When Oedipa visits Nefastis, though, she discovers a basic problem in the latter's presentation of Maxwell's experiment: Nefastis tells her that for the demon to function, it needs to receive information from a sensitive, a condition that Oedipa might perhaps fulfil: the sensitive is a being external to the box that provides its demon with "something like the same quantity of information" it needs to sort out the hot from the cold molecules (Pynchon 1966, 72). However, such protocol lacks a sound epistemological foundation because the basic resource or *demon* needs to send the sensitive—who stands outside the thermodynamic system— an informational input so that it may sort out the hot from the cold molecules in the box. Accordingly, Oedipa expresses her doubts about the procedure— "'But what,' she felt like some kind of a heretic, 'if the Demon exists only because the two equations look alike? Because of the metaphor?" (73). That is to say, the protagonist seems to intuit that Maxwell's experiment requires an impossible manifestation external to the system—the sensitive—to send information/energy to the demon inside the system so that the area of perpetual energy may be activated. But the writer also suggests in this core passage of the novel the discursive similarities existing between the narratives of religion and science, here also connected to the act of communication: both paradigms demand or make reference to manifestations external to their own systems. By so doing, they trap western believers within their binary structures to re-present or interpret reality, in which one element always occupies a privileged position over the other: hot vs. cold, saved vs damned. Inescapably, in both paradigms their capacity to work or to become useful depends or aspires to a transcendental mythic level or origin (the sensitive here, Logos for Derrida) that may send information (classified in the novel as revelations, epiphanies, or hierophanies; see Mendelson 1978, 122) to the system, allowing it to separate the hot from the cold molecules, or metaphorically to reach the ultimate truth or meaning.

Additionally, for our discussion here Frank Palmieri offers an illuminating analysis of Pynchon's handling of the two versions of entropy, in thermodynamics and in information theory, to dismiss—as Oedipa realizes—the validity of Nefastis' machine while stressing the encompassing albeit uncertain condition of the story in *The Crying of Lot 49*:

Although Maxwell did not go on to refute his own supposition, the physicists Leo Szilard, Leon Brillouin, and Norbert Wiener did, by showing the complementarity between thermodynamics and the field

of information theory, which was founded by Claude Shannon's equations of 1948. The new paradigm of information theory was strengthened in the process of demonstrating why it is impossible to 'get something for nothing' by exchanging information for heat energy without any gain in entropy. (Palmieri 1987, 981; see also 980-4)²

In clearer terms, Pynchon suggests in this chapter the structural parallelism existing between the role played by Maxwell's demon in the field of thermodynamics—sorting out the hot from the cold molecules—and Oedipa's role as (parodic) detective in pursue of meaning—sorting out true from false information. From there the game of reflection extends to (Christian) religion, as Oedipa needs her own sensitive to help her from a superior level. Her demand for a superior power that may become manifested and help the protagonist is suggested in the Maxwell's Demon episode but traces of the importance of religion, inclusive of Oedipa's invocation to the Christian deity, abound in the story since its first page—"Oedipa [...] spoke the name of God." The book is also, since the words of its title, saturated with the teleological promise of the Last Judgment, the final moment of revelation where, according to the Book of John, another binary pair will be enforced: the elect will be saved while the preterite will be damned. Either/or options saturate Oedipa's mind since the beginning of her quest and there are explicit occasions in which the narrator allows readers to perceive the protagonist's mixed beliefs about the main paradigms that condition her perception of reality. One of the most clarifying episodes happens when she accidentally knocks a can of hair-spray in her bathroom:

The can knew where it was going, she sensed, or something fast enough, *God or digital machine*, might have computed in advance the complex web of its travel; but she wasn't fast enough, and knew only that it might hit them at any moment, at whichever clip it was doing, a hundred miles an hour. (Pynchon 1966, 24; emphasis added)

Ideologically, to equate the religious and the technological in an either/or choice is symptomatic of Oedipa's conditioned personality as a Western individual continuously receiving inputs from the contrasting paradigms of religion and science. Pynchon's hand shows ironically in the notion that God might compute "in advance the complex web" of the can movement. Such idea reverses the assumptions of Norbert Wiener's investigations and his project

to create artificial intelligence—that is to say, computers—by imitating the workings of the human mind, which was created by God according to the Book of Genesis. The necessity to clarify the message—final aim of the protagonist's quest—by sorting the valid information from the entropic noise will finally reach up to the role of the reader, as a puzzled recipient in demand of a closed ending. However, as suggested by the fact that Oedipa fails as a sensitive for the demon, the Maxwell's Demon episode already implies and anticipates by extrapolation that the transcendental manifestation of superior powers to help and solve the problems of inferior beings is only a myth; nothing of that sort is going to happen. The Demon will not be able to sort out the hot from the cold molecules, therefore epitomizing the trap of Newtonian science,³ Oedipa will not receive the revelation she demands, and readers will be left on the verge of revelation at the end of the story but the final meaning will never be disclosed. And, if the origin of things cannot be reached, how can Oedipa—and by extension the readers—be sure that the preferences expressed by binary Western discourse, as manifested in its paradigms, are the right ones? Once the validity of the privileged elements in each binary is questioned, there is no end to the play of the signifier, as Derrida was going to prove the same year The Crying of Lot 49 was published.

The following narratological scheme, representing the (reflective and metafictional) embedded conditions of different actors and levels in the book may help to clarify Oedipa's and the readers' impossibility to ever reach any ultimate answers in conventional binary discourse:

Level outside the book: Pynchon and puzzled readers

Narrator addresses story to narratee / narratee finally awaits for revelation

Oedipa fails as sensitive and waits for revelation
/ Nefastis as pseudo-priest

Maxwell's Demon in box with hot and cold molecules, expecting revelation from sensitive

Revelation, in the sense of a transcendental manifestation from a superior level, never occurs. The diagram clearly shows the regressus in infinitum structure of the novel, an echo of Borges celebrated story "The Circular Ruins" (1944). The regression expands outward when we understand that, as readers, we cannot provide an answer for Oedipa's either/or quest, and that outside the book we cannot escape either from the tyranny of the categorical language we use to establish communication in our daily activities. Only the metaphor may be illuminating: different ontological levels cannot be trespassed, and the myth of origins can never be reached by means of a language that functions in binary, categorical terms. The realization of the discursive trap comes late in the story to an exhausted Oedipa when she concludes in an oftenquoted passage: "She had heard all about excluded middles; they were bad shit, to be avoided" (125). But how can you avoid the categorical value of language if you are still using it? There is no way out of the trap, but Oedipa, and the reader, still remain waiting for revelation.

From its first pages, the story has disclosed explicitly in some passages designs of Christian revelation. Oedipa remembers a telephone conversation with Inverarity in which the tycoon talks parodically "in tongues," (6) as Jesus promised his disciples in the Pentecost; later on in the apocryphal version of Wharfinger's play, Domenico's tongue is set aflame (45). But it is in the last paragraphs of the novel where the invisible author draws in detail the setting for the expected disclosure of all, evoking the Book of Revelation, whose main number is 7, which multiplied by itself in an evocation of the metafictional impulse results in the 49 of the novel's title, the number that precedes the 50 of the second Pentecost or day of Final Judgment, which also puts an end to the story when "Oedipa settled back to await the crying of lot 49." Readers have come full circle, trapped in discourse, back at the title of the novel and kept in silence, the only possible way to defeat the pervasive impulse of language that makes us see life in binary terms.

Notes

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¹ As explained later on in her book, when Hutcheon finally offers her often-quoted full definition of parody: "Parody is repetition, but repetition that includes difference [...] it is imitation with critical ironic distance, whose irony can cut both ways. Ironic versions of 'trans-contextualization' and inversion are its major formal operatives, and the range of pragmatic ethos is from scornful ridicule to reverential homage" (37).

² Abernethy offers an early and interesting discussion of the topic in 1972, also stressing the relevance that Norbert Wiener's theories had in

Pynchon's handling of the notion of entropy.

³ A binary trap finally avoided by quantum mechanics on a subatomic level, as formulated by Heisenberg in his famous Uncertainty Principle. For the relevance of the new physics paradigm on postmodern literature see the pathbreaking theories of Robert Nadeau in the first two chapters of *Readings from the new book on nature*.

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Contributors

SIMON DE BOURCIER is the author of *Pynchon and Relativity: Nar-rative Time in Thomas Pynchon's Later Novels*, as well as articles on Thomas Pynchon, David Foster Wallace and time travel in fiction, and entries in *The Literary Encyclopedia* and the *Dictionary of Nineteenth-Century Journalism*. He is one of the editors of the journal *Orbit: Writing Around Pynchon* (www.pynchon.net). He holds degrees from the University of Cambridge, Anglia Ruskin University and the University of East Anglia.

LOVEDAY KEMPTHORNE holds a Master of Advanced Study in Mathematics from Cambridge University and is currently completing her doctoral thesis on the relations between mathematic and poetics, at the School of Languages and Cultures and School of Mathematics, Statistics and Operations Research at Victoria University of Wellington, New Zealand. She has published on poetry and mathematics and in particular on Ion Barbu/Dan Barbilian and Zbigniew Herbert.

AMY J. ELIAS is Professor of English at the University of Tennessee, Knoxville. She is a founder of A.S.A.P.: The Association for the Study of the Arts of the Present, served in various offices for that organization, and hosted ASAP's 2009 launch conference. Her publications include numerous articles concerning contemporary literature, aesthetics, and narrative theory; Sublime Desire: History and Post-1960s Fiction (2001), which won the George and Barbara Perkins Book Prize from the International Society for the Study of Narrative; and two co-edited essay collections: Time: A Vocabulary of the Present (with Joel Burges) and The Planetary Turn: Relationality and Geoaesthetics in the 21st Century (with Christian

Moraru, forthcoming 2015). Her book in progress concerns aesthetics and relationality in the contemporary arts. A full CV can be found at http://utk.academia.edu/AmyElias.

NINA ENGELHARDT is a Research Fellow in the interdisciplinary group 'Transformations of Knowledge' in a.r.t.e.s. Graduate School for the Humanities Cologne, Germany where she does research on the interrelations of literature and science, particularly mathematics. She was awarded a PhD from the University of Edinburgh where she also worked as Postdoctoral Teaching Fellow and Career Development Fellow. Nina Engelhardt has published in the fields of literature and science studies, modernism studies, and on the work of Thomas Pynchon.

GIUSEPPE EPISCOPO is a Teaching Fellow in Italian literature and language at the University of Edinburgh and has a PhD in Modern Philology (University of Naples Federico II). He edited and translated into Italian Fredric Jameson's *Brecht and Method* and has published on Stefano D'Arrigo, Carlo Emilio Gadda, William Goyen, Primo Levi, Thomas Pynchon, Federigo Tozzi, Juan Rodolfo Wilcock in books and journals. Giuseppe Episcopo has a forthcoming monograph on Stefano D'Arrigo and Thomas Pynchon entitled *L'eredità della fine. Tempo e mito nel romanzo poststorico* (2015).

MARTIN PAUL EVE is a Senior Lecturer in Literature, Technology and Publishing at Birkbeck College, University of London. He has published widely on American fiction and particularly on the novels of Thomas Pynchon. He is the founding editor of *Orbit: Writing Around Pynchon* and in 2014 published *Pynchon and Philosophy: Wittgenstein, Foucault and Adorno*.

TERRY REILLY is Professor of English at the University of Alaska Fairbanks, where he teaches early modern English literature, Renaissance literature, surveys of world literature (particularly the literatures of Asia, Africa and Latin America). With regard to Thomas Pynchon, Reilly has published one encyclopaedia entry, and several articles in journals and books. His most recent publications on this author appeared in *Pynchon's Against the Day: A Corrupted Pilgrim's Guide* (edited by C. Leise and J. Severs, 2011) and

in Thomas Pynchon & the (De)Vices of Global (Post)Modernity (edited by Z. Kolbuszewska, 2013).

FRANCISCO COLLADO-RODRÍGUEZ is Professor of American Literature at the University of Zaragoza (Spain). He has published articles on recent American fiction in journals such as *Studies in the novel*, *Papers on Language and Literature*, *Journal of Modern Literature*, and *The Southern Literary Journal*. Among the books authored and co-edited: *El orden del caos: literatura, política y posthumanidad en la narrativa de Thomas Pynchon* (2004), *Masculinities, Femininities and the Power of the Hybrid in U.S. Narratives* (with Nieves Pascual and Laura Alonso, 2007), *Chuck Palahniuk* (2013), and volume 56-57 of *Pynchon Notes: V. is for Varo Too* (with Celia Wallhead, 2009).

SUSAN STREHLE, Distinguished Service Professor of English, serves as Vice Provost and Dean of the Graduate School at Binghamton University, part of the State University of New York. A scholar specializing in modern and contemporary fiction, global and American literature, women writers and postcolonial theory, Strehle has published three books, including *Fiction in the Quantum Universe* (1992) and *Transnational Women's Fiction: Unsettling Home and Homeland* (2008). She has recently published essays on Barry Unsworth, Chimamanda Ngozi Adichie, Toni Morrison, and Louise Erdrich.

SHERRYL VINT is Professor of Science Fiction Media Studies and Co-Director of the Science Fiction and Technoculture Studies Program at the University of California, Riverside. An editor of the journals *Science Fiction Studies* and *Science Fiction Film and Television*, she is the author of a number of books and articles on science fiction, most recently, *The Routledge Concise History of Science Fiction and the Question of the Animal* (2012²), and *Science Fiction: A Guide to the Perplexed* (2014).

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