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# Confronting the Monolith: Authority and the Cold War in *Gravity's Rainbow*

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One of the notable aspects of *Gravity's Rainbow*, if we consider it as an historical novel of a special kind, is the way in which "great" political leaders are barely mentioned. The carnival lacks the mock king, and the historical novel lacks the leader who embodies history. The explanation here is paradoxically historicist. *Gravity's Rainbow* explicitly addresses a constructed audience (in the Orpheus Theatre) in the Cold War and is *about* the formation of the Cold War in its techno-bureaucratic context. The *realpolitik* of authority in the Cold War context has changed. Bureaucratic constructions of System operate as the *modus operandi* for authority in the novel and they parallel the historical formation of Systems theory and analysis with such US organizations as RAND. This development represents, in the technologies and the discourses of the military and political strategists, a response to Hitler and the supposed tyranny and threat of Communism. The series of characters we encounter within the novel reflects different forms of entrapment and/or lines of flight in response to the authority of the System in what John Johnston has called an assemblage, or postmodern multiplicity.[1] Containment and counter-force become metaphors which Pynchon scurrilously uses to subvert the moral righteousness of the Western Cold Warriors in their defense of a "free world" (paradoxically) under siege from an ever threatening Communism. Pynchon is interested not in the great historical figure, but in the relation of the individual to the System, militarily, scientifically, socially, and sexually.

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[1] See John Johnston, "Pynchon's 'Zone': A Postmodern Multiplicity," *Arizona Quarterly*, **46**: 3 (Fall, 1990), 106.

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Pynchon pre-empts what David Suchoff has described as New Historicism's antagonism toward the canonization of high modernism as a form of liberal subversiveness. The model of modernist subversiveness, according to Suchoff, represents a liberal response to the problem of the Cold War. In particular it represents a critical response which attempts to preserve a liberal canonization of modernist literature as texts which resist, through the ploys of decentering and destabilizing, any form of Marxist or Progressive determinism.[2] In doing so, they develop an apparent radicalism which fits comfortably within the Cold War rhetoric of containment. Pynchon pre-empts the New Historicists in their confrontation with the end of the Cold War and their raising of the "question of narratives's complicity with mass society" which the New Criticism had left begging.[3] He does this by historicizing the relation of the individual to the technological and political origins of containment and Systems theory and by foregrounding again the problem of the commodity, in particular the problem of the individual as commodity within the System.

As a result, Pynchon creates characters who are symptomatic of what Tobin Siebers has called "the Cold War effect," making explicit the *realpolitik* base of that experience. The Cold War, according to Siebers, created conditions of far and paranoia to which literary criticism, in its own way, fell victim:

> We are afraid that the cold war will never end, and so the history of the cold war is the story of our skepticism about endings, intentions, interpretations, and calculations concerning numbers, troop movements, weapons, negotiations, and claims to truth and falsehood.... Our fear contributes an essential part to the cold war mentality. It determines the distrust, suspicion, paranoia, and skepticism that have always characterized the cold war era.... It is a state that requires skepticism, and this skepticism in turn preserves the state. This is the cold war effect.[4]

Being in the Zone and being in the Orpheus Theatre, in Gravity's Rainbow, create conditions of paranoia and skepticism about the possibilities of endings. This condition is in turn created by the relation between the individual and authority in the emerging and already existing cold war.

Authority, in *Gravity's Rainbow* takes on an anonymous, plural and

[2] David Suchoff, "New Historicism and Containment: Toward a Post-Cold War Cultural Theory," *Arizona Quarterly*, **48**: 1 (Spring, 1992), 137–60.
[3] Ibid., 146.
[4] Tobin Siebers, *Cold War Criticism and the Politics of Skepticism* (New York: Oxford: Oxford University Press, 1993), 29–30.

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systematic nature as Them and The System. It represents a dispersal and rationalizing of structures of authority. Slothrop's Pavlovian conditioning, for example, represents the attempt to develop a systematic means of control by harnessing him as a resource. The System coerces his sexuality in the services of war. His masochism appears to be an explicitly sexual masochism in relation to the technologies of System embodied in the V-2. As Milton Gloaming discovers towards the end of the novel, "Slothrop surveillance" has been assigned by IG Farben to a category (Sparte IV) besides dye, film, gasoline and "Polimex or something."[5] Likewise, Gottfried's final flight at the end of the novel entails the marriage between technology and his sexuality: his "bare limbs in their metal bondage writhe among the fuel, oxidise, live-stream lines" (751). The plight of the individual is based on his relation to this anonymous and systematized authority, which, because of its dispersed and anonymous nature, creates mechanisms for entrapment through the restriction of an individual to only part of the System (one part of the rocket mechanism, for example) and creates conditions for the existence of paranoia.[6] The cyborg is made possible by war and is a representation of Cold War desire and horror.[7] Slothrop, in his final resting place in the Zone is described as "Slothrop besieged" (145). This is not to say that for Pynchon these "great" historical figures did not exist, but rather to suggest that they are not as important in the key organization of power and the assertion of authority as Systems.

[5] Pynchon, Thomas, *Gravity's Rainbow* (London: Picador, 1975), 630–31. All quotes from *Gravity's Rainbow* will come from this edition.

[6] The literature on Pynchon and paranoia is extensive. See, for example, Leo Bersani, "Pynchon, Paranoia, and Literature," *Representations*, **25** (1989) 99–118; Scott Sanders, "Pynchon's Paranoid History," *Twentieth Century Literature* (1975), 177–92; and Louis Mackey, "Paranoia, Pynchon and Preterition," *Substance*, **30** (1981), 16–31.

[7] Karl, Deutsch, writing in 1963, described the rise of the cybernetic model as occurring because of the fortuitous "convergent development in a whole series of different sciences. Among these trends is the development of mathematical and statistical methods for the study of randomness of order, and thus of probability… the mathematical and empirical studies of control mechanisms, from Clark Maxwell's early paper on the governor of the steam engine to the highly developed automatic control of engineering today… Ivan Pavlov's emphasis on the material value of psychological processes," *The Nerves of Government: Models of Political Communication and Control* (London: The Free Press of Glencoe, 1963), 78.

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## THE GREAT HISTORICAL FIGURE AND THE COLD WARRIOR

The development of Systems theory came, in the view of many in the bureaucracy, as a response to the perceived problem of the notion of individual genius, and/or ideological tyranny. The idea of the "world historical figure" as a pivotal figure in defining the nature of political power and forming historical monuments comes from Hegel. In Hegel's theory, the world historical figure emerges because of a coinciding of this individual's own will and understanding of the moment with the actual goals of history. His will (and of course in Hegel it is gendered male) reflects the dialectical process that the world historical spirit itself expresses. It is in this coincidence that the world historical figure has his power. The great man's purpose, according to Hegel, comprehends "the substantial content which is the will of the world-spirit. This content is the true source of their power; it is in the universal unconscious instinct of men." This understanding is "inwardly driven" or intuitive and as a result "the peoples assemble under his banner, he shows them their own inner bent … and carries it out."[8]

The greatness of the world historical figured lies in "his" ability to sense and articulate the next stage in the historical development.[9] Within many conceptions of the nature of the twentieth century and the problem of totalitarian authority, this articulation of central political figures has become problematic. The spectre of a man raising a flag, people assembling under that flag and, through this association, people being shown their "inner bent" as become synonymous with the rallying cry of Nuremberg. Under the flag of Fascism, the German people were shown what their true "inner bent" was. With the defeat of Hitler, the nature of the "great historical figure" as described by Hegel reaches a crisis point in Western history. Popular narratives retain this sense of the great political figure, in both a positive and negative sense. But the policy processes of the bureaucracy continually attempted to undermine the ability of the individual to make impromptu decisions based on their own sense of genius and the ability to perceive the direction in which "history" is moving.

The political and diplomatic discourses of the Cold Warriors' policies were intimately concerned with this problem of the idea of the individual who believes that he has the ability to understand the course of history.

[8] Hegel, *Die Vernuft in der Geschichte*, as cited by Charles Taylor in *Hegel and Modern Society* (Cambridge: Cambridge University Press, 1979), 99.

[9] Ibid.

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The focus, however, moves from a belief in evil genius to an analysis of Marxist ideology as inexorably antagonistic toward the "free world" (capitalism) and the nature of Communist Party control. The key to the development of the famous Truman doctrine (whether intentional or not) is seen by many to emerge from the article written by George F. Kennan anonymously (the "X" article) in 1947.[10] The two key points in Kennan's antagonism towards Stalinist Russia lay in his understanding of Marxist "ideology" which believes in the inevitable but slow overcoming of the capitalist West. Kennan describes it as the "cultivation of the semi-myth of implacable foreign hostility."[11] This is combined, for Kennan, with the belief that the leadership of the Communist Party considered themselves to be infallible because they believed they could articulate and understand the path of history. This justified complete political control and tyranny. Romantic individualism is replaced by a collective tyranny:

> The Soviet concept of power, which permits no focal points of organization outside the Party itself, requires that the Party leadership remain in theory the sole repository of truth. For if truth were to be found elsewhere, there would be justification for its expression in organized activity.... This means that truth is not constant but is actually created, for all intents and purposes, by the Soviet leaders themselves.... It is only the most recent manifestation of the wisdom of those in whom the ultimate wisdom is supposed to reside, because they represent the logic of history.[12]

The "free world," within this emerging understanding, is a world under siege from this tyranny generated by a belief in the deterministic nature of history. The individuals within this ideological view are "like the white dog before the phonograph, they hear only the "master's voice.'"[13] Furthermore, the party, once it sets out on a particular policy, "moves inexorably along a prescribed path, like a persistent toy automobile wound up and headed in a given direction."[14] The images of the automated and the indoctrinated individual of course saturate the literature and film of the Cold War. This is especially true in spy moves, where the idea of the automaton being activated provides a structure of suspense, such as in *The Manchurian Candidate*. In *Gravity's Rainbow*, these ideas are not given a specifically communist context but are seen to be part

[10] Twenty years later, Kennan attempted to disown responsibility for the way in which this article was interpreted militarily, but admitted at the very least that the article was written in an ambiguous way. George F. Kennan, "A Rebuttal and an Apology," in *Memoirs, 1925–1950* (Boston: Atlantic-Little, Brown, 1967), 313–67.

[11] George F. Kennan, "Firm Containment and Unalterable Counter-Force," in Thomas G. Paterson, ed., *Containment and the Cold War: American Foreign Policy since 1945* (Reading Mass.: Addison-Wesley, 1973), 22.

[12] Ibid., 25.

[13] Ibid., 25.

[14] Ibid., 25.

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of the development of the science and technologies of System which cross national boundaries. It is not so much about creating suspense through the structure of good vs. evil, but an exploration of the pathos of the condition of the cyborg.

In Kennan's argument, the intractable communist is everywhere and cannot be stopped. He is a threat without and within, geographically and ideologically. This defense of "freedom" against the binary opposition of the intractable communist is played out militarily and politically within the Cold War. Pynchon, however, undercuts the moral high ground implicit in the rhetoric of Western freedom against the communist automaton held as an evident truth by someone like Kennan or Truman. For Katje, for example, the claim, by Enzian at the supposed "end" of the war, that she is "free" (661) rings hollow. The end of the war just provides a new set of problems associated with the Counterforce. It assumes the continuation of "Them" and forms of Systematic control. It is a path which is not based simply on the notions of the free against the communist world. Any claim that she is free is a cheap exit. It represents a desire not to complete the narrative, or, as the metaphor works here, finish the play:

> "the rest" is exactly what I ought to be doing. I don't want to get away with some shallow win. I just don't want to – I don't know, pay him back for the octopus, or something. Don't I have to know why he's out there, what I did to him, for Them? How can They be stopped? How long can I get away with easy work, cheap exits? (662)

The individual within the "System" which supposedly "frees" the West, is under siege. In *Gravity's Rainbow*, characters search for escape from the System in and through sexuality and/or the mystical cultic experience. See, for example, General Pudding's encounter with Katje in the White Visitation. This episode combines a masochistic sexuality, with a mystical grail quest using cabbalistic images. For Pudding, "his real quarters have become a place of exile, and his real home is with the Mistress of the Night"[15] (235). The *ménage à trois* between Gottfried, Katje, and Blicero is a "preserving routine, their shelter, against … the War, the absolute rule of chance, their own pitiable contingency here, in its midst" (96). Hitler, in *Gravity's Rainbow*, gets only the occasional passing reference.[16]

[15] See Paul Fussell, "The Ritual of Military Memory," in Edward Mendelssohn, ed., Pynchon: *A Collection of Critical Essays* (Englewood Cliffs, N.J.: Prentice Hall, 1978), 21; and Steven Weisenburger, "Further Notes and Sources …" *Pynchon Notes*, **17** (Fall 1985), 83.

[16] It seems hardly worthwhile to cite all references to Hitler; suffice to say that most references to Hitler in the novel seem to be at best flippant asides such as the reference

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## SYSTEMS THEORY AND THE COLD WAR

Systems are central to the nature of authority in *Gravity's Rainbow*. The address to the audience in the Orpheus theatre, under threat from ICBM, connects the technological and apocalyptic "present" with its origins in the military industrial complex at the end of World War II. It is the "system" in the specific sense that RANDites thought of it which connects the two time frames. Pynchon's interest in the technological bureaucracy can be shown from what little we know of Pynchon's life, and what other glimpses we can have into Their logic, when They are the ones behind the logic on which the Cold War is based. They, in this context (and there is of course only one possible reading of who They are) form the logic of rational strategic "war game" playing in the Cold War, the McNamara fan club and theorists of Total and Limited War. Outside of the specifically military context, "They" might also be seen to be the propagators of techniques and strategies of "containment" as a response to the "Communist" threat. Both the military notions of Systems theory and the diplomatic and political notions of containment, represented by "The Truman Doctrine" (as developed by Truman and Kennan in 1947) go hand in hand. In many ways, they overlap and in some instances share terminology. Pynchon chooses, I would suggest, to write about the particular types of people (middle-class technocrats) and systems (military and social) that he does because of the way in which they represent the emergent grounds for the power structures that the Cold War represented. This can be seen as an ongoing theme in Pynchon's writing. It is perhaps most transparent in his article for the *New York Times* on Luddites, where the argument about the emergence of systems as the main source of power becomes almost apocalyptic.

> By 1945 the factory system – which, more than any piece of machinery was the real and major result of the Industrial Revolution – had been extended to the Manhattan Project, the German long range missile program and the death camps such as Auschwitz. It has taken no major gift of prophecy to see how these three curves of development might possibly converge.[17]

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to the "Lübeck Hitler Youth Glee Club" (752) and this sad indictment on the brief appearance of Schlein for whom "most likely the bitching and bickering of Army vs Party was what finally drove Schlein over the hill, more than any moral feelings about Hitler" (630).

[17] Thomas Pynchon, "Is it O.K. to Be a Luddite?" *The New York Times* Book Review, 28 Oct. 1984, 40.

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Historically, these emergent systems in the United States were typified by such organizations as the RAND corporation, Boeing, and the Douglas Company, all of which demonstrate the fluid link between military and commercial operation and the increasing power of largely anonymous corporate power structures in the post-war era of the United States and their participation in the development of nuclear missiles of various kinds as well as their roles in the development of the space travel technology. It is these groups which indeed advocate the need to change our conception of political authority from authority based on the idea of individual genius to authority based on rational systematic decision-making.

From the little that we know of Pynchon's life, we do know that, during the period from 1960 to 1962, he experienced at first hand the nature of this military industrial complex while working for Boeing. Reports as to what his job actually was vary. Matthew Winston notes that he worked as an engineering aide, and as a technical writer.[18] David Cowart quotes Walter Bailey as recalling that he "wrote for an intramural sheet called the 'Minuteman Field Service News'... Pynchon and Bailey worked in the Minuteman Logistics Support Program."[19] The byline to Pynchon's 1960 article in *Aerospace Safety* identifies him as working in the Bomarc Aero-Space Dept.[20] According to a recent interview with one Ronald Arnold, who worked in a similar job to Pynchon from 1956 to 1964, it was possible to job hop as a technical writer through the institution and all the above positions could be held by one person. It is important to notice that each job is military related and linked to some form of ground-to-air missile research, including the Minuteman missile which was a prototype for the ICBM. Perhaps even more importantly than learning about technical details, however, is the potential insight that could have been gained by Pynchon into the rationale behind Cold War politics and the specific history of the emergence of new technologies from the end of World War II and how these technologies actually transformed the way in which power operated. Even in his article for *Aerospace Safety*, there is an air of disillusionment with the recognition that safety systems are "generated out of tragedy – someone killed, someone mangled for life." This is combined with a sense of rising panic at the

[18] Matthew Winston, "The Quest for Pynchon," *Twentieth Century Literature*, **21**, (October 1975), 284.

[19] David Cowart, *Thomas Pynchon: The Art of Allusion* (Carbondale and Edwardsville: Southern Illinois University Press, 1980), 96.

[20] Thomas H. Pynchon, "Togetherness," *Aerospace Safety*, **16**: 12 (Dec. 1960), 6. It is almost completely certain that the H, is a misprint, according to Boeing sources.

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fragility of the systems for loading and unloading ICBM's. The article ends with the slightly ominous "[t]here has never been a tragedy on any Bomarc airlift. Yet."[21] Here the themes of control, the System, counterforce, game theory, in *Gravity's Rainbow* take on an extra importance when considered in the context of their specific meanings for Cold War military strategy.

One of the linchpins in the development of these strategies was the RAND Corporation, a non-profit strategy and policy-forming corporation.[22] This corporation is particularly interesting in that the idea for it was formed in 1945 in direct response to the experience of World War II and as part of the first stage of the escalation of the new war. It was in fact, in its formation, explicitly one of the projects set up by the American military to study V-2 rocket techniques "and other intercontinental air techniques of the future" in 1945 at Hamilton Field.[23] As we know, however, the subsequent development of this organization went far more toward the implementation of the Cold War megalomania, well beyond the search for technical research and resources. It became an organization set up to provide strategic advice in the Cold War. It offered a means of making military and political decisions in a way which was antithetical to Hitler's *modus operandi*, whose weakness was seen in his reliance on intuition and "creative genus." The alternative methodologies of war to Hitler's intuitive "creative genius," which was seen as being unreliable, was found in games theory and the theory of total and limited nuclear war that was ominously worked out under the nomenclature of "operations research" betraying its origins in the operations research in World War II. As a result, as an organization it became a dominant force in a post-war strategy which was interdisciplinary on an intellectual level and politically crossed the boundary between military and civilian, reaching its maximum influence in the early 1960s.[24]

Operations research in this context made use of research which was already being carried out in the war itself. Operations research in the Cold War for RAND:

[21] Ibid., 8.

[22] It is an interesting coincidence (which, while proving nothing definitively, adds weight to my argument) that, during the period that Pynchon worked for Boeing on the Minuteman and Bomarc projects, RAND was also involved in logistical work for these projects. This is not to mention more conspiratorial connections in the actual executive structure of RAND further connecting it to companies such as Boeing and the Douglas Aircraft Company. See Bruce Smith, 161.

[23] Bruce L. R. Smith, *The Rand Corporation: Case Study of a Nonprofit Advisory Corporation* (Cambridge, Mass.: Harvard University Press, 1966), 41.

[24] Ibid., 62.

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represented, in effect a view of war which was antithetical to Hitler's, bringing measurement, control and the mathematical analysis of complex operations into play against the romantic and "inspired" moves of the axis forces.[25]

The formation of the Cold War strategy was seen here as forming an alternative to the notion of the great historical figure on the basis, not so much that Hitler was the devil incarnate, but that his intuitive means of decision-making was irrational and therefore less effective.

The apparent justification for this assessment of the problem of Hitler's decision-making processes has its source in Dornberger's bitter account of why the Germans delayed the production of rocket technology in 1943.[26] As the apocryphal story goes, Hitler made his decision based on a dream that no A4 would ever reach England.[27] What we have articulated here is the desire to change the grounds on which authority is expressed. This change occurs with the emergence of a type of political and military rationalism aimed to replace individual "genius" with decision-making processes which are based on "rational" principles. If this is achieved, the only prerequisite for "great" leadership will be the ability to make rational choices. Strategic analysis in this context orientates itself toward "seeking to clarify choice under conditions of great uncertainty."[28]

In *Gravity's Rainbow*, we often encounter this rhetoric of political rationalism. Pynchon, however, makes us aware of the slippage between the rational objective system and the human experience of that same system. The "Operation" in *Gravity's Rainbow*, for example, is the precursor to the expanded post-war conception of special operations. In the "Operation," the individual is always subservient and unimportant. Clive Mossmoon and Sir Marcus, two somewhat minor characters in the novel, who speak in the language of Camp British innuendo, are faced with the melancholy sense of their own transience against the apparent permanence of the "Operation." While they as individuals will be doomed to failure "the Operation won't." There is a break between the "bog of trivial frustrations, political fears, money problems" which is the subjective experience of the individual in the Operation, and "the sober

[25] *Harvard Defense Policy Serial* No. 106, Part D, p. 2 as cited by Bruce L. R. Smith, ibid., 8. It is interesting to note that Smith also, here, cites the seminal Pynchon source, Walter Dornberger's *V-2*, as further evidence of Hitler's fatal flaw being his reliance on intuition. See also Bernard and Fawn Brodie in *From Crossbow to H-Bomb* (New York: Dell Books, 1962), 200.

[26] Dornberger's book is generally held by critics to be one of the major sources for the historical material in *Gravity's Rainbow*.

[27] Walter Dornberger, *V-2*, trans. James Cleugh and Geoffrey Halliday (London: Hurst and Blackett, 1954), 93.

[28] Smith, 8.

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shore of the Operation, where all is firm underfoot, where the self is a petty indulgent animal that cried in its mired darkness (616). The "Operation" is an analyzable abstract system in which power is always "calibrated." The frustration which the individual experiences in this context is also sexual, it destroys the ability for "real surrender" in the fantasy of homosexual bondage, so that there is "no joy.... Only the demands of the Operation" (616).

For the military theorists, military rationalism, historically, does not just emerge as a response to a theoretical critique of "what was wrong with Hitler." Games theory and Systems analysis also were able to form the basis of strategic decision-making in the post-war era because of the changing role of science and technology in the military industrial complex itself. The developing technology in this era means that, as Andrew Wilson points out, it is:

> no longer possible to talk intelligently of "weapons" but only of "weapons systems" because the aircraft, missile or space satellite is militarily meaningless without its associated system of guidance and control radars, warheads, electronic features...[29]

Manuel de Landa makes explicit the link between the development of Operations Research during World War II and the emergence of RAND and Systems analysis as an expansion of these principles. War becomes the organizational formation of an emerging type of social control. Operations research in the post-war era emerges as a result of the collaboration and formation of new bonds between the military and the scientific community and also has subsequently been developed as part of "management science."[30] The individual as a figure of authority justifies his authority on the basis of his expertise in systems in general, as a mediator between systems which operate on different levels.

In the work at RAND, the rhetoric of political decision-making involved the elision of different concepts of System for the purposes of policy analysis. Only one aspect of the concept of the System necessarily meant "weapons systems" and even the concept of a weapons system is not particularly straightforward. A new weapons system, as Bruce Smith points out, includes interrelated economic and strategic factors associated with its development. The concept of the System also could refer to a "more elusive concept of total constellation of military forces that may

[29] Andrew Wilson, *War Gaming* (Harmondsworth, Middlesex: Penguin Books, 1970), 114.

[30] Manuel de Landa, *War in the Age of the Intelligent Machine* (New York: Swerve Editions, 1991), 5.

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govern the implementation of a broad strategic objective" or, on the other hand, it could refer to a "subsystem or component part of a total weapons system of force posture whose effectiveness is compared to some other subsystem."[31] In short, Systems Analysis ranged from the economic analysis of a whole complex of interrelated military hardware, personnel, and strategy to the analysis of a single component in a V-2 rocket. Correspondingly, in *Gravity's Rainbow* we have the elision of concepts of control and system which move between the particular problems in relation to the technical details of the development of guidance systems in the Rocket to larger issues of political system and control.

In the context of the rhetoric of Systems Analysis, Pökler's reverie about Kekulè's dream and the lectures of Professor Jamf takes on an interesting new aspect. "The Great Serpent with the tail in its mouth" (which, as an architectural symbol, inspires the model for benzene and thus becomes a breakthrough in the dye industry) has a pseudo-Nietzschean mystical[32] aspect as "a closed thing, cyclical, resonant, eternally returning" (412). This mystical unity is violated by its entry into the "System," which is inevitably entropic in nature. This system is not "everything" but is a limited, productive, capitalist system of some type. The System's aim is to "violate the Cycle" of this perfect image. It is a system obsessed with "taking and not giving back, demanding that "productivity" and "earnings" keep on increasing with time." The System is a vast energy-consuming process in service of profit and, as a result, "not only most of the humanity – most of the World, animal, vegetable and mineral is laid waste in the process" (412).

Pökler's analysis of system in this context is one which does not look to see how the system can operate in the most efficient fashion, but examines the effect of the way the System operates on the world. The System is about consumption. The military industrial system acts in a completely parasitic manner destroying the apparent mystic unity and purity of the image of the serpent with its head in its mouth. What is also expressed is the tension between two types of chronotope, one being the architectural "eternal" perfection of molecular structure and the parasitic decaying nature of the systems movement through time and space. The System consumes to "buy time" against the inevitable entropy of the system (412). This image of purity and eternity in the image of the snake

[31] Smith, 161.

[32] One of P. D. Ouspenky's visions include a man who "wore a tunic girded with a serpent swallowing its tail" in *The Symbolism of the Tarot* (St Petersburg, 1913), as cited by James Webb in *The Harmonious Circle* (London: Thames and Hudson, 1980), 24.

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in its mouth, threatened by the entropic system, needs to be considered in context. It is part of the Fascist idolization of the synthetic over the organic in the search for architectural permanence. On a more limited level, this passage can be taken as a representation of Pökler's sense of despondency at the degradation of timeless values which is pivotal to his own social and political entrapment. In this sense, Pynchon can be read as constructing the problem not simply as a problem with the System itself, but as a problem of the relation of the individual to authority as system. It is a response to the idea of authority as system in *Gravity's Rainbow* through ideas of transcendence and Fascist metaphors of permanency and the synthetic.

Paranoia becomes another response to the nature of abstract systematized authority. Connected to the development of Systems Analysis was the idea of game theory in the RAND corporation. This, too, has its origins in World War II, emerging as it did from the culture of decryption and Turing machines. The most famous, or notorious, proponent of gaming theory in the military was von Neumann, whose "mini–max" rule in his analysis of the Cold War scenario was a "zero-sum" game, where the rule of thumb is summed up by de Landa succinctly as the maxim "if you can't maximize your gains by disarming, then minimize your losses with a nuclear build up."[33] The results of this type of thinking tends in itself to be paranoid.[34] Game theorists in the RAND corporation were nicknamed the "chess-players," according to one strategist, "because they assumed that decision-makers always acted rationally in full possession of the facts."[35] More particularly, this nickname could possibly be seen to have emerged from the extent to which chess playing was an important part of the culture of intelligence and operations research in the war – for example, where many of the ideas relating to Systems Analysis emerged through the increasing importance of the "logical structuring of information communication and control."[36]

[33] de Landa, 97. This is what has otherwise been known as the "Prisoners dilemma" where the most "rational" option for two prisoners might appear to be co-operation between them in order to get light sentences; actually one could not risk being betrayed and getting a long sentence so, one should, instead of maximizing one's gains through co-operation, minimize one's losses by squealing.

[34] de Landa, 97.

[35] Wilson, 116.

[36] According to Turing's biography, chess playing was an important part of the culture of Bletchley park where most of the decrypting and intelligence work for the Allies was based, although von Neumann's game theory is rumoured to have had its origin in watching Poker games and not chess; of course blind chess is just as good a metaphor for the rhetorical structure of the Cold War. See Andrew Hodges, *Alan Turing: The Enigma* (London: Vintage Books, 1992), 212–13.

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Chess playing is an interesting recurring motif in *Gravity's Rainbow* in this light. Martin Rosenberg suggests that, in *Gravity's Rainbow*, chess "tropes the fascist implications of war as a dissipative structure involving the complicitous participation of warring nations."[37] I would suggest that Pynchon's novelistic position is parodic, in this context, both of this model of chess as war, and as a model which is historically connected to the RAND theories of War Gaming. Pynchon's chess players are bad chess players, overturning or reversing the notion that game-playing theorists assume, that if you are playing the game you will play rationally and with a desire to win. Slothrop reverses the principles of rational chess playing, defending the lowest ranking pieces except for the pawn, at the expense of his queen. Strategy, here, rather than representing a rational decision-making process, represents the idiosyncratic nature of the individual character involved. The "long lethargic backing" alternating with "idiot razzle-dazzle" reflects the nature of Slothrop's movements throughout the novel which vacillate between indulgent moments of rest and headlong flight through the Zone (567). Katje plays the ultimate unsportsmanlike trick as the "genius of meta-solutions – knocking over the chessboard, shooting the referee" (102). For Pökler, chess extends further into his life as a way of thinking about how They operate in their manipulation of his wife, Leni, and his daughter, Ilse. When they send, Ilse instead of Leni, they "Present a pawn, withdraw a Queen," and in so doing act in a rational "strategic" manner in terms of offering a (human) sacrifice (417). Chess as a metaphor complements Pökler's already paranoid perception of the world.

Mravenko is also "the most maniacal systemless chess player in Central Asia" and "His tastes ran low enough to include even blindfold chess, which Russian tastes find unutterable gross" (611). Blind chess is more accurately the model for the idea of the zero-sum game. The logic of game theory is again overturned. Mad strategy, or anti-rational strategy seems to win, although it is unclear whether Tchitcherine's losing here is the losing of the game or the failure on his part to make Mravenko play rationally, or alternatively whether his attempts to "jolly the madman into some kind of rational play" cause him to lose. In any of these cases, if we read this passage as an allegory of the assumption that the Cold War rhetoric is made in game theory, then the opposition will play in the most rational way in order to maximize its own chances of winning (the

[37] Martin E. Rosenberg, "Invisibility, the War Machine and Prigogine, Physics, Philosophy and the Threshold of Historical Consciousness in Pynchon's Zone, *Pynchon Notes*, **30–31** (Spring–Fall, 1992), 108.

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mini–max strategy). Pynchon responds by allegorically representing the problem of the irrational opposition to the "game" of war as being the source of the seeds of a counterforce opposition to the system of the game itself.

The idea of system is linked intrinsically with the idea of control, which becomes a crucial aspect of System's Analysis. For a system to function, it must have adequate control mechanisms; this operates literally in the case of the Rocket as a mechanism within the rocket itself, but extends itself to metaphors of social control in the wider definition of Systems Analysis. The architectural structure of Nordhausen in *Gravity's Rainbow* represents this symbolic extrapolation of the idea of control at work. The mathematical function of integration involved in the control mechanism of the rocket is written into the language of architecture itself, and is elided with ideas about social control. The double integral is the function of the rocket control in which "change is stilled … 'meters per second' will integrate to meters." It is also, however, a function of architecture as the yearning for permanence so that "the moving vehicle is frozen, in space, to become architecture, and timeless. It was never launched. It will never fall" (301). It is a constant threat or symbol derived by integration from a dynamic moving rocket. Technically this integration also defines a relation to gravity (301).

The structures of the tunnels also, of course, reflect the enforcement of social control in the most blatant manner through the evocation of the SS (299). It is a seriousness which is left open to carnivalesque mockery. The comedy is especially black when the individual response to the proliferation of symbolic meaning in the Nordhausen architecture is aesthetic complacency. Etzel Olsch's response to the symbolism is expressed blandly as "the most contemporary thing he had ever seen" and "oh that's nice" (298). The artist here lacks an understanding of the nature of the image he has constructed, incapable of realizing the moral consequences of his work and appears as a cartoon figure to be blown up by an exploding cigar (300).

Pynchon creates the reverse effect of the Cold War rhetoric and strategy in its uses of the concepts of the System and control. Whereas, as Bruce Smith argues, the aim of Systems Analysis and games theory was ostensibly to help "clarify choice under conditions of great uncertainty", *Gravity's Rainbow* does the opposite and undermines the ability of the individual to clarify their choices in conditions of great uncertainty.[38] As

[38] Smith, *The RAND Corporation*, 8.

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George Levine suggests, "Pynchon's novels disorient."[39] An obvious example of this is "Lazlo Jamf's celebrated intoxicant" Oneirine with its "property of time modulation" (389). In this passage we are made explicitly aware of the process of "disorientation" through the introduction of the fictional drug. It is, however, not so much a serious epistemological problem here, as a comic one. The submarine develops as a schlemiel, a machine out of kilter with its environment. The comedy is continued, with the quote by "Schetzline," by accentuating the difficulty of "objectively" describing in his "study" this disorientated state. To understand the subjective experience, Schetzline has obviously had to try the drug himself, or some sort of drug which seems to evoke the psychedelic image of the "wedge of silver sponge." Schetzline, too, is out of his depth. The result is a moment of total confusion for the submarine in which the anarchists are plunged into chaos, and, of course, take things into their own hands (389).

As the name the U.S.S. John E. Badass suggests, the boat participates in the Luddite tradition which Pynchon celebrates. For Pynchon, the Badass is the central figure in the Luddite tradition, epitomized by Mary Shelley's Frankenstein who "qualifies as a major literary badass… that is for its attempt, through literary means which are nocturnal and deal in disguise, to deny the *machine*."[40] The methods of denying the machine, (in this case the fictional drug Oneirine) although apparently scientific, act in a non scientific way, with non mechanical results. Part of this Luddite insistence is to "insist on the miraculous" and "fictional violations of the laws of nature – of space, time thermodynamics, and the big one, mortality itself" as a way to "deny the machine at least some of its claims on us."[41] Denying the machine here is very closely connected to the principle of denying the System, as the System attempts more and more to emulate the decision-making processes of the machine. The U.S.S. John E. Badass, in collaboration with the "mischievous" Seaman Bodine, denies the machine by wasting its fighting capacity in the shooting of a floating corpse, and disrupts fictionally the laws of nature through the disruption of linear temporality (somewhat like an episode from the television series *Star Trek*).

[39] George Levine, "Risking the Moment," in Harold Bloom, ed., *Thomas Pynchon* (Chelsea House: New York, 1986), 59.
[40] Pynchon, "Is it O.K. to be a Luddite?" 11.
[41] Ibid., 41.

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## THE COUNTERFORCE

The term "Counterforce" is a key in the implementation of Systems theory in the Cold War, and in the generation of the arms race. The term is used by Pynchon in an ironic way. The Counterforce in *Gravity's Rainbow* makes its appearance in the final most fragmented part of the novel. The Counterforce is an organization which is dedicated, as we have seen with Katje, to rescuing Slothrop, but also to providing resistance, not to Communism, but to Them and Their System. Pynchon parodies Their term, and in doing this explores the limits of counter-revolutionary activity. The Counterforce becomes specifically an allegory about the problem of the politics of 1968 and their relation to the Cold War. In Kennan's "X" article, he uses the term "the Counterforce" in a particularly ambiguous way, suggesting, although not stating specifically, the use of military and political counterforce. The Counterforce, in Kennan's article, seems to represent techniques both political and military to counter the irrepressible rise of Communism. The ambiguity of Kennan's solution reflects the ambiguity of his assessment of where the threat is located. The threat is everywhere, sense as an inexorable pressure. The Counterforce, as a result, must be everywhere.

> [T]he Soviet pressure against the free institutions of the western world is something that can be contained by the adroit and vigilant application of counterforce at a series of constantly shifting geographical and political points, corresponding to the shifts and manoeuvres of Soviet Policy, but which cannot be charmed or talked out of existence.[42]

The possibilities of paranoia within this model are boundless; the threat could come from anywhere, without and within, politically or militarily.

The term developed specifically military weight during the development of Nuclear Weaponry and the ICBM when used by organizations such as RAND. The rhetoric was apocalyptic in its orientation and has a large influence on *Gravity's Rainbow*. The concept of a Counterforce as Hermann Kahn has described it was a strategy which posited the use of retaliatory nuclear missiles in a nuclear war which was "rationally" limited in order to avoid complete apocalypse. The basis for the strategy involved the targeting of the enemy's retaliatory weapons by reaching them first in a way which would mean that the aggressor could play its strongest hand in a form of military bargaining. This was combined with an alternative

[42] Kennan, *Firm Containment*, 27.

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counter-city strategy which targeted population centres.[43] In other words, "If you bomb New York we'll bomb Leningrad." In terms of the history of the military industrial complex in the States, the adoption of the counterforce strategy was one of the primary causes of the escalation of the arms race in the name of deterrence. It also required (as is demonstrated in *Gravity's Rainbow*) the further and ongoing development of complex communications technologies and interactions between different types of military forces.[44]

Pynchon subverts the term "counterforce" by associating it with concepts of counterculture and anti-rational protest as forms of political resistance to "The System" itself. The final section of the novel is entitled "Counterforce." (The "quote" from Nixon: "What?" pinpoints the irony in the allegory). The Counterforce is also dedicated to searching out Slothrop. The end of the novel explores the limits, and, in many ways, the failure, of a Counterforce, in the face of the System. It acts as a transparent allegory of sixties notions of Counterculture. The possibilities of an effective Counterforce are limited. For example, Tchitcherine's turn to the Counterforce, represents a "Theory of History – of all pathetic cold comforts" (704): "Not till recently did he come to look for comfort in the dialectical ballet of force, counterforce, collision, and new order – not till the War came and Death appeared across the ring" (704).

Pynchon draws out the ballistic nature of the image of the Counterforce, its dedication to a continuation of war, and, most ironically, its dialectical nature. Counterforce, in its cold Warrior context, also represented a dialectical antithesis to tyranny, through the creation of System. In *Gravity's Rainbow*, the Counterforce is about the attempt to take this dialectic another step forward and respond to the new world order of System itself and the forms of tyranny that it in turn creates. Slothrop's particular predicament – as a victim of the rocket; as a part of Their military industrial System; and as a figure who is besieged, fragmented, compartmentalized and dispersed on the Zone at the end of the novel – determines the nature of the Counterforce's response and reflects their sense of value. The Counterforce is associated with dream time, pranksterism, and mysticism. Roger Mexico, when he sets out to become a member of the Counterforce, performs what is a parody of a yippie-like protest by "pissing" on the symbols of war heroism (536). Pig Bodine

[43] Nordal Akerman, *On the Doctrine of Limited War*, trans. Keith Bradfield (Lund: Berlingska Boktryckeriet, 1972), 28.

[44] Herman Kahn, "Some Comments on Controlled War," in Klaus Knorr and Thornton Read, eds., *Limited Strategic War* (London and Dunmow: Pall Mall Press, 1962), 64.

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wears a "paint blue" zoot suit, which, as the narrator comments, is "A subversive garment all right" (710). Milton Gloaming, as a messenger of the Counterforce, advocates a Counter to Them, in the use of a "We-system" based on "Creative paranoia" (638). The overtones of the discussion are ominous, however, as Mexico points out – if they develop a We-System, then that is playing "Their Game":

> "Without any contrary set of delusions – delusions about ourselves, which I'm calling We-system – the Gloaming idea might have been all right."
> "Well you're playing Their game then."
> "Don't let it bother you. You'll find you can operate quite well. Seeing as we haven't won yet, it isn't really much of a problem." (638)

The Counterforce, then fails to live up to its ideals and gets lost in the resort to mysticism. Of Nora Dodson Truck we learn that "in true messianic style, it has come clear to her that her real identity is, literally, the Force of Gravity... *That against which the Rocket must struggle*." She provides "chances for a good practical joke now and then" and "will get suckered into seances that wouldn't fool your great-aunt" (639). Later, the Counterforce takes on corporate structure and Slothrop becomes a corporate logo of the avant-garde: "The Man has a branch in each of our brains, his corporate emblem is the white albatross" (712).

The Counterforce, as the narrator suggests, "are as schizoid, as double-minded in the massive presence of money, as any of the rest of us, and that's the hard fact" (712). The problem of success results in Slothrop becoming just as much a reified object in the Counterforce's corporation as he was in Their System. His metaphorical status as a "plucked albatross" becomes literal within a new comic social science in Natasha Raum's Paper on: "Regions of Indeterminacy in Albatross Anatomy, Proceedings of the International Society of Confessors of an Enthusiasm for Albatross Nosology" (712). Pynchon's Counterforce ends as an allegory of the appropriation of radical politics for theoretical analysis.

## CONCLUSION

Pynchon's big novel, then, responds to the Cold War constructions of authority as System by reconstructing the experience of the individual in relation to the system in a variety of ways. In doing so, he uses the terminology and rhetoric of System and Operation in order to bring out the relationship that the individual has to this reorientation of authority away from the individual cultural hero to abstract and depersonalized System. The carnivalesque aspects of the novel allows for the generation

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of the variety of responses to this anonymous and Systematized authority. These responses include political dissent, paralytic entrapment, paranoid flight, and sado-masochistic fetishization. In investigating the values that these responses represent, Pynchon generates significant insight into the plight of the individual caught within the machinery of the Cold War, providing both a revision of history and a reconceptualization of the political context in which the novel was written.

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