

Terrifying Technology: Pynchon's Warning Myth of Today

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While Tyrone Slothrop roams the Zone in *Gravity's Rainbow*, ego and identity plucked like an albatross (623), the Counterforce, resembling Melville's white whale, wishes the Man—with "a branch office in each of our brains"—could be identified and disarmed, depenised and dismantled (712–13). Yet whatever has broken the contract with nature, the Man is not the single, identifiable person Ahab was,¹ but possesses a multitude of personas. Slothrop fantasizes going to Shell Mex House to strike through the mask (or the nylon pantyhose more likely), to unravel the cartelized, polymerized web, and finally to "dabe daves." He finds Duncan Sandys "only a name" and the great Consortium inside the "Rocket's own branch office in London" only a circle of proto-computers, or international "business machines," exchanging information with each other (251).

At the close of the twentieth century, Slothrop's discovery sounds like a prophetic allusion to the Age of Information and the Internet, the "net of information that no one can escape" (165), as much as a pre-Lyotardian recognition that multinational corporations control all the information because they control the machines (see Lyotard 5–6; Nye, NS 165). In 1998, Sadie Plant claimed that Bill Gates was a mere name and that technology itself drives its autonomous progress in a way that makes control impossible to trace as we once thought we could. Microsoft may be just the gatekeeper, or Bill Gates the demon, and we the ones re-engineered and mass produced to fit the machine's ways. But even if Pynchon was not prophesying the World Wide Web, *Gravity's Rainbow* does deal with questions of corporate identity in an age of technology and increasingly complex information loops. Pynchon addresses questions relating to the locus or loss of control by rehearsing arguments concerning technological determinism versus social constructionism.

In different ways, so too, elsewhere in this volume, do Christophe Den Tandt ("Management and Chaos") and Thomas Schaub ("The Environmental Pynchon"). They focus on the power held by mythic and narrative structures deriving from broader cultural representations of the corporate and the carbonate. One way or another, both of the latter seek to entrap nature and to determine notions of identity, freedom and

self-control. Den Tandt discusses people caught in (male) corporate personas; Schaub discusses a movement against corporate powers that set death-traps in nature. These are isomorphic issues relating to the power to act, to dissent and to be insurgent within certain structures, and to the risk of being enslaved by technologized corporations as a result of their tampering with nature—both human and the one capitalized (on) metaphorically as Mother Nature. These possibilities are linked, not least because those who appear responsible for enslavement in *Gravity's Rainbow* sometimes lose their own secure identity as characters—both within the novel and in their identification with real corporate engineers whose personas, in turn, oscillate in a military-industrial-scientific complex. Weissmann/Blicero is a narrative example of such instability, and reflected real-life characters like Wernher von Braun show the changeling nature of the engineer, scientist or administrator in varying political and ideological climates.

Perceptions of these categories, as well as of their fixed identity or job-description, become increasingly diffuse within vast bureaucracies, organizations or systems in the postwar world. The blurring of the identity and objectives of a character like Blicero in *Gravity's Rainbow* may express a textual strategy associated with postmodernism. However, the extra-textual reference to men like von Braun, who cannot be fixed as either only military, industrial or scientific-engineering specialists or managers, and who—en masse and mostly nameless—cannot be identified or held individually responsible by the public at large for the errors of the bureaucracy, organization or corporation they make up, links this perceptual blurring to a historical phenomenon associated with postmodernity and anticipated by Hannah Arendt in her concept of “rule by nobody” (HC 45). In Arendt’s words, “the multiplication of offices destroys all sense of responsibility” (OT 409). Anonymity and loss of individual responsibility become built-in organizational necessities within both large-scale technological projects like the rocket program with which von Braun was involved in Germany and the United States (exemplifying Lewis Mumford’s “Megamachine” of modern society [MM2 passim]) and the rocket production and human extermination project within which Blicero operates.

Impossible to hold personally accountable for any disasters (environmental or otherwise) to which they have each contributed only in part, scientists, engineers and managers retreat facelessly behind the mask of the corporation. Location and motivation are disguised and contained within the incorporated legal body, and power is displaced from the Robber Baron character of an earlier era to a board of governors acting not on their own behalf but to further the life of the corporation which sustains them. Corporations, such as chemicals

giants, have placed similarly intangible powers within the body of nature, a virtuous structure which Rachel Carson warned in *Silent Spring* now contains invisible threats from strontium fallout and chlorinated hydro-carbon compounds. The ecological movement has therefore had to fight a multi-headed hydra—a hydra-carbon akin to Pynchon's synthesized Ouroboros, perhaps—in the form of elusive human agents within a corporate system and of their logic which creates an organized threat to nature. The movement has alerted us to the fact that, once the contract with nature has been broken and synthesis, or poison, introduced into an eco-system, death and corruption can occur anywhere in the food chain—all for profit.

As consumers and voters, we have also become faceless and powerless, and have—for better or worse—come increasingly to see the effect of our individual actions as negligible, assuming our personal contribution either to, say, pollution (through selfish consumption habits) excusably small, or to political power and democracy (with our single vote) insignificant and pointless. Ironically, in postmodern theory the isolated consumer has never been more selfish and less self-defined. With civil rights reduced to commodified consumerism and identity to competitive individualism in the market place, sovereignty and choice have become *a priori* radically undermined, and nature conceived of as so much raw material. In our late-capitalist society, the illusion of personal choice has been used and furthered by marketing and advertising. Ecological and other ideological movements have also tried to appeal to the consumer to promote green and political issues (such as sustainable farming and labour rights in the third world) by buying ideologically healthy goods and changing supply through directed demand. But in using purchasing power to change offending parties' behaviour, we buy our way into, at best, a pseudo-democratic power. By acting thus as consumers rather than as citizens, moreover, we may simply incorporate ourselves by "free choice" into the corporate capitalist system's war on nature. We seem to have a choice between Leid-Stadt and Happyville, but we cannot get off the train.

As system and metaphor, technology may advance the semiotic reduction of the political to the natural. Advertising and fascist propaganda (like that Pynchon exposes at linguistic and symbolic levels) use common technological symbols to legitimize and advance power structures as if they were as natural and unchangeable as nature itself is assumed to be. Such a positive stable value granted to the natural, to the technical forms via which (by analogy, association and identification) the natural is adopted and adapted, and to the political systems those forms may sanction in turn holds true only as long as Technology (from the manifestations of industrial progress which claim

to mimic nature, to the fundamental building-blocks of DNA and atomic nuclei which appear to constitute nature) and, especially, (Romantic) Nature are considered solid and redemptive rather than neutral, changeable or in decay.² But the openness of Nature and Technology to direct or metaphoric manipulation, and the suspicion that Nature, used to legitimize technology and politics in turn, has itself become corrupted cause confusion and blurring at higher levels of justification. Pynchon's profound, radical suspicions are themselves exercised down to the deepest layers of metaphor and ancient mythic sources.

Pynchon is obviously acutely aware of the formation of technology's own legitimizing myths. As Schaub shows, Pynchon uses these myths pedagogically to dismantle themselves, just as Carson does when she first shows her readers the carbon molecule and the synthetic compounds which delight chemists and weapons designers, then demonstrates how natural cycles are broken by these unnatural ones. Such a strategy resonates with the Kekulé section in *Gravity's Rainbow*—just one example of the many ways Pynchon sets up and undercuts different types of selective, positive technological creation myths. Beneath the fictional construction of myths and identities supporting technology, meanwhile, lies the dreaded System, represented by Capitalized Technology itself. Technology in this form is either the direct cause of the corruption of nature and humanity, or a metaphor for a deeper level of thought where rationality has gone awry and where mankind is ultimately responsible for technology's vampiric aberrations.

I will first show how Pynchon sets up three varieties of traditionally positive technological creation myths. Then I will illustrate how each is turned into a technological warning myth. While retaining the outward structure of creation myths, Pynchon destabilizes their positive content and their traditional identity by exposing the dangers inherent in faith in technological heroes and ideas. This mythesis (as against mythopoesis) involves reworking a mythic formula for ironic effect. Beyond simple opposition, this mythetic reworking suggests the amorphous and decentered yet simultaneously rigid and entrapping (erectile) system which lies beneath the mythicized simplicities of technology, but which historical facts and counter-myths can expose.³

1: Technological Creation Myths

Pynchon draws in *Gravity's Rainbow* on well-established technological creation myths. He uses specific *figures* mythicized in technology lore, such as von Braun, who informs in part the Blicero character. He also uses specific mythic *moments* crystallized into

single, allegorical images, such as Kekulé’s dream of the benzene ring as a serpent, and Crick and Watson’s conceptualization of DNA as a double helix—both constantly reworked and reapplied in *Gravity’s Rainbow*. Finally, in addition to such great figures and moments in technological history, Pynchon evokes a higher order of Western technological creation myth, dating back to the Greek myth of Prometheus.

1.A: Great Men, Great Ideas: Blicero and von Braun

Of these three types, the first—centered on the heroic figure—is a hardy genre in the history and philosophy of science. Though increasingly unfashionable, “great men with great ideas” have for years anchored perceptions of technological development, with cultural and historical narratives focussing on individual geniuses or entrepreneurs pursuing path-breaking ideas. Some stories have almost frozen to still pictures representing the ideas or the moments of their inception: Benjamin Franklin flying his kite and key under a stormy sky; Isaac Newton struck by a falling apple. Some have been elaborated upon to dramatize the inventor-hero’s difficulties in convincing a reluctant public and financial backers (as in Alexander Graham Bell’s case) to shift paradigms. Finally, as in the case of Thomas Edison, Huck Finn-style childhood episodes of unbridled inventiveness and independence have been offered up to explain the origins of the great man’s controversial new thinking and heroic fighting spirit.⁴

In *Gravity’s Rainbow*, Laszlo Jamf exemplifies the generation of a Great Man image, as his professorial eccentricities are filtered through the memories of pupils, colleagues and employers (161, 284–86, 413, 580). Pynchon makes a similar case for Blicero by identifying him partially with Great Man von Braun, the young technical director of the V-2 program during the Second World War. (Von Braun would later cast himself as more of a Franz Pöckler character, making his story closer to a Daedalus-style drama of the innocent engineer forced by a totalitarian regime to abuse his inventiveness.) In fact, however, would-be-engineer Gottfried best expresses von Braun’s persona when he dreams about flirting with deadly machinery, believing that “the hero always walks out of the heart of the explosion, sooty-faced but grinning” (102). Embodied subsequently in the scorched but triumphant Chuck Yeager, hero of Tom Wolfe’s *Right Stuff*, this image well describes the transcendence of von Braun, who had cause to grin broadly when the American T-Force caught up with him in Bavaria in 1945.⁵ Von Braun made a successful move to the United States, working on army missile projects in the 1940s and becoming something of a television idol with

the help of Walt Disney and NASA in the 1950s and 1960s (see Spangenburg and Moser vii–x, 86–87). But while rocketeer von Braun became a media star, thereby gaining a measure of immortality, Blicero himself takes up his own place in a mythic pantheon in *Gravity's Rainbow*. When Greta Erdmann sees him on Lüneburg Heath, he has become “a local deity” (485). As a scientist or engineer figure, Blicero has reached an apotheosis and immortality through people’s narratives. He no longer inhabits physical space and historical time, but is suspended, like “the perfect rocket” (426), in mythic space and time.

1.B: Mythic Moment of Creation: Image Products of Technology and Science

While technological creation myths may invest themselves in the depiction of an inventive person, a second way technology can be frozen as a mythic narrative is in the form of a single image or metaphor depicting a great moment or breakthrough in science. Franklin and his kite have already been mentioned, but Pynchon tends not to focus his Great Moments on Great Men themselves. Rather, he addresses the metaphoric power of the vision which sometimes precedes the rational principles behind it: the apple dropping onto Newton’s head before the idea of gravity could drop into it, or Kekulé’s dream of the circular serpent becoming the “blueprint” (412) which leads him to conceptualize the structure of the benzene molecule. Kekulé’s synthetic circle not only precipitates the invention of aromatic compounds, polymers and plastics, but ends up signifying some of the qualities of the product and the society embracing it (as it does in Carson’s *Silent Spring* and Kurt Vonnegut’s *Breakfast of Champions*, amongst other books of their period).

Describing how Liebig, a points- or switchman and Maxwellian demon, directed Kekulé from spatial to chemical architecture (411), Pynchon makes here a direct link with the SS design of the Mittelwerke conceptualized by architect Etzel Ölsch—a disciple of Albert Speer, who was “in charge of the New German Architecture then” but later moved from buildings to munitions (298). The underground factory, meant as a symbolic tribute to the SS, also (unintentionally) mirrors “the double-integrating circuit” in the rocket’s guidance system, the “double-summing of current densities” (411), Leibniz’s “‘Summe, Summe’” (300), and, finally—in its own shape and in that of “the railroad tracks [which] run in underneath” the parabolic entrance (298)—the double-helix image of the chemical building-blocks of life.

The central metaphor of the SS—“a ladder with a slight S-shaped ripple in it, lying flat: 44 runglie Stollen or cross-tunnels, linking the

two main ones" (299–300)—is both "the shape of lovers curled asleep" (302), often associated with Slothrop's postcoital position, and the emblem of the triumphant Nazi construction of the underground Stollen and rails of the rocket factory.⁶ Thus it signifies the way forward, in production and reproduction. The Mittelwerke is an architectural and manufacturing triumph, and relies on the positive message or the cult of progress inherent in technological creation myths. In its imagined postwar guise as Rocket City, it becomes a tourist attraction, showing the viability of designs and ideas for the future in pop culture theme-park fashion. While the DNA-shaped railroad under the Ölsch/Speer parabola is the very image of nineteenth-century progress, at the time of the Apollo lunar landing missions when Pynchon was writing, the rocket fulfilled a similarly positive signifying role for twentieth-century technological development. The railroad-rocket progression may have started life underground, but when presented to the public, it takes the Apollonic sun-sign into outer space.

1.C: Progression from Prometheus: Science Shines a Light

The third and final category of technological creation myths is probably best represented by the historical development of the Figure of Prometheus. Mythic treatments of technological innovation rarely fail to evoke this higher order myth. One branch of the original Greek myth, Prometheus Pyrophoros, has him steal fire from the gods and donate it to humankind. Though this deed is criminal in the classical world of Hesiod's *Theogony* and *Works and Days* and Aeschylus's *Prometheus Bound*, to Enlightenment scientists it established Prometheus as a brave culture hero—like themselves. The other branch, Prometheus Plasticator, casts him as a creator of human beings from clay, thus as a giver not only of skills but of life itself.⁷

The development of Prometheanism in Enlightenment thought also contains the seeds of the gendered mind-matter split which poses masculine Science against female Nature. Down the ages, Francis Bacon and prominent members of the Royal Society, for example, have taken as the basis of their scientific and technological quest the urge to reveal, put in order and redesign "scatterbrained Mother Nature" (GR 324). *Gravity's Rainbow* draws on the rhetorical tradition which has male scientists pursuing Dame Nature into her antechamber to wrest her innermost secrets from her (see Easley 19–22). Pynchon's rocket engineers pursue this logic of conquest: the Rocket as "steel erection" (GR 324) to which the "purely feminine counterpart" submits (223) stands metaphorically for the determined quest of science for "an entire system won, away from the feminine darkness" (324).

Not satisfied with investigating the attributes of nature scientifically, engineers feel the need to improve and redesign her. In America, where the practical sciences had more status, Prometheus transcended his English Enlightenment image as enquiring scientist, but retained the semantics of the desirable quest. Carrying the torch of technological improvement, he has been used to herald progress from the building of railroads via the successful explosion of early nuclear devices (eulogized by William Laurence in *Dawn over Zero*) to the launch of the Apollo XI lunar landing mission (which the title of Norman Mailer's *Of a Fire on the Moon* announced as a Promethean adventure rather than one of Phoibos Apollon⁸).

Pynchon's Promethean—would-be next "in the true succession" from Liebig to Jamf (161)—is Pökler, who understands the Baconian tenet that trial and error produce progress in modern engineering. Drunk with success and post-rocket-launch celebration, and with "a loose grin on his face," Pökler announces to his wife: "'it failed, Leni, but they talk only of success! [. . . *Njo one's ever done it before'*" (162). In *Of a Fire on the Moon*, Mailer describes the motive for early German rocket designs as "the simple desire to get the rocket to function long enough to give an opportunity to discover where the failure occurred. . . . Even at the end of the fifties and into the beginning of the sixties," Mailer adds, "the malfunctions of rockets were legend" (156)—so much so that, much to the consternation of rocket manufacturers and testers, the publicity of their premature explosions caused a "hideous cackle of national self-loathing" from the press and other "technological illiterates" (Wolfe 59, 57) who, they felt, held "a nontechnologist's or even antitechnologist's view of an ordinary, everyday engineering procedure" (Stine 214-15). The "tiny silver egg" that nearly kills Pökler (GR 161), and Mailer's "fifty years of rockets digging furrows in cornfields and catching fire on the pad" are, to the true engineer, signs not of wastefulness but of inevitable progress and eventual efficiency in "getting the eggs out on time" (Mailer 165).

2: Technological Warning Myths

2.A: Empty Heroes

Having discussed some of the technological creation myths Pynchon uses in *Gravity's Rainbow*, I now want to show how he turns them into cautionary myths. In rearranging the elements of mythic types and subverting them, Pynchon exposes their oppressive and destructive aspects. To return to the first example, Pynchon's treatment of Blicero as a Great Man also shows him to be an abuser of power in

the course of his ideological quest. Partly because Pynchon relies on established explanations of technological progress which emphasize personal agency, it may seem that his project is also directed at individuals. Were this so, he might easily have directed his critique at von Braun himself. Instead, though von Braun does inhabit *Gravity's Rainbow*, a fictional Great Man (based only partly on von Braun and other historical characters) provides the manifest target. Moreover, Pynchon ultimately exposes what lies *behind* the Great Men in the form of mind-sets, attitudes, behavior patterns or simply *systems*. For instance, it is suggested that Jamf may be a fiction invented to explain an unnatural attraction (in Slothrop's case) between man and machinery (738); but only rarely do Pynchon's Great Men seem creations, mere fictions, hiding nothing—more frequently fronting something quite ominous, if (and because) unspecified. (Assuming that no one invents in a vacuum, even in positive creation myths the Great Man acts as a cypher or shorthand term for a progress that might be collectively authored or socially enabled, though time and history-writing obliterate this aspect of the relation.)

During the twentieth century, creation myths have increasingly had to create or sustain images of individual responsibility clearly no longer in keeping with historical circumstances. Franklin may have been an individual genius, but by Edison's time, the complexities and costs of technology demanded teamwork, and corporate research laboratories were becoming a necessity.⁹ Although Edison functioned as a pointsman figure or manager, he cultivated his image as a solitary inventor type for the sake of publicity. Cult-figures like Einstein helped perpetuate the *idea* of the lone inventor and singular scientist into which the von Brauns of this world could tap, regardless of the fact that vast organizational structures, techniques and computerization were rendering amorphous the locus of responsibility and power.

Explanations for our need for such figures of authority are not far to seek. As the systems upon which we rely grow complex beyond our grasp, as an understanding of them evades us, so they demand our implicit trust in technology. The realization of the extent of our powerlessness and dependency causes anxiety, as does the fact that we find ourselves at the mercy of something of apparently mystical or magical proportions.¹⁰ A renewed belief in myths of preindustrial power relations places recognizable individual men in charge. It reassures people that we, or our high priests of science and engineering, still control our tools, preventing them from usurping life and godlike powers.¹¹

Pynchon's dismantling of positive creation myths not only exposes the unethical behavior of individual Great Men; it also reveals their

interchangeability within a vast, compartmentalized and autonomous technological system. Blicero remains a god or king for Greta Erdmann and Enzian because he still seems to hold the power of technology encapsulated in the 00000. He slips from his fairy-tale role (96-100) into being seen as a deity in possession of his white, island kingdom (485-86) to transcending into White Death itself, with America or the moon as a new death-kingdom (322, 660-61, 666, 722-23). Blicero no longer inhabits physical space and historical time, but is suspended, like his rocket, in mythic space and time. But to Thanatz and Pökler, both closer to the mysteries of the firing of the 00000, Blicero the person is exposed as a madman (465, 670), a worn-out myopic who is as "harassed as any civil servant" (427) and drained by the bureaucracies above him while abusing those below him in the hierarchy. The "new life-death priorities" (431) he is given are those of the War, or whatever vampiric creature drives it. (Enzian comes to suspect temporarily that the Rocket too is a mere cypher [520].) Blicero transcends in spectral form (like Bland) as the former camp prisoners (homosexual *Häftlinge*), the 175s, religiously preserve the "visible Lager and the invisible SS" (666).

Keeping a phantom Blicero alive allows the prisoners hegemonically to perpetuate the "Rocket-structure" he represents. This unbearable power feared by "their real SS guards" is different from the "real pain and terror" of physical "Auschwitz or Buchenwald" or Dora. The "summoned deliverer," A4/V-2 or Blicero, is not just a destructive high priest of technological bureaucracy raised to a religious level where intimacy with the Rocket makes his journeys liminal, chthonic ones behind the "uncrossable wall," but an oppressive power which has become invisible and internalized (666). As a result, the 175s perpetuate their own oppression, Pökler's fear of Blicero's imagined omnipotence tortures him into submission, and Slothrop's psychosexual conditioning summons the deliverance via V-2s.

The caution conveyed by this presentation of a mythic, immortal Blicero is either that he is a powerful shaman or prophet of the Technological Order, or that raising him to that status makes people voluntarily perpetuate oppression—upgrading inhuman(e) power abuse to impersonal, suprahuman power structures. The role of a created Blicero in maintaining such a system—whether multinational corporate order, technocracy or some deeper biological conspiracy—through a chain of command is perhaps more malevolent than Blicero's personal abuse of characters in *Gravity's Rainbow*. Though Pynchon holds Them up as external oppressors, passages like the description of the 175s show how he also blames our predicament not on alien forces but on ourselves. Like the banished 175s, we seek masochistic security in

reconstructing an invisible SS, and keep alive Bliceros who depend on our desire for an oppressive structure willingly circumscribed with rituals of imagined hierarchies of command. In the postwar and postmodern disruption of visible structures of responsibility, even irrational, unfair and oppressive ones are imaginatively reestablished to give people a sense of being looked after.

Just as the human being Blicero becomes a pathetic and ultimately manipulated character, so Duncan Sandys and Edward Pointsman are other disempowered *per-sonae* within the systems they thought they commanded.¹² They function as switchmen but are not the railroad itself (615, 644). They cannot change the determining system underneath, only delude themselves that a freedom of choice exists for those persons in charge on its visible surface. They are exchangeable bit-part players in the Game, or cyphers fronting a sinister system. The Corporation, such as ICI and others in *Gravity's Rainbow*, is a legal rather than a physical body, and individual members are insignificant (228, 251). The interchangeability, not only of employees but also of cartelized firms across boundaries, allows defection, and counterspies fronting in cartels. But a few of these Corporation operators finally realize that, in a system that really spans the world, there are no sides anymore (566), and they have "'defected for nothing'" (542). Similarly, the conscientious consumer (s)electing the "ecologically responsible" brand of washing powder over the reckless, phosphate-rich one on a supermarket shelf may be exercising only the right to choose one Lever product over another.

2.B: Snakes and Ladders: Molecular and DNA traps

The imagery of such corporate orders, as of the chemical/biological system, is grounded in Pynchon's use of the DNA, benzene ring and plastics imagery mentioned above. Here again a type of technological creation myth, the image of a concept, is subverted or hijacked by Pynchon's cautionary project. Synthetic chemistry and with it organic chemistry in the form of DNA produce and become "'structures favoring death'" (167) in real and metaphorical relations in the text instead of the positive web of life in evidence in Pirate's fertile roof-garden (5-6, 10). Plastics simulate life but compose a "'transparent [. . .] shroud'" (756) of inert, dead matter. Rather than promises or ladders to the future, they are traps or chains or serpents getting behind your "true face" and inside your head (671). Some characters wear synthetic masks of the corporation: Gottfried is literally trapped inside an Impolex fairing; Greta submits to it masochistically; and manager Zhubb ("'Dick, you character!'",) who peddles the celluloid

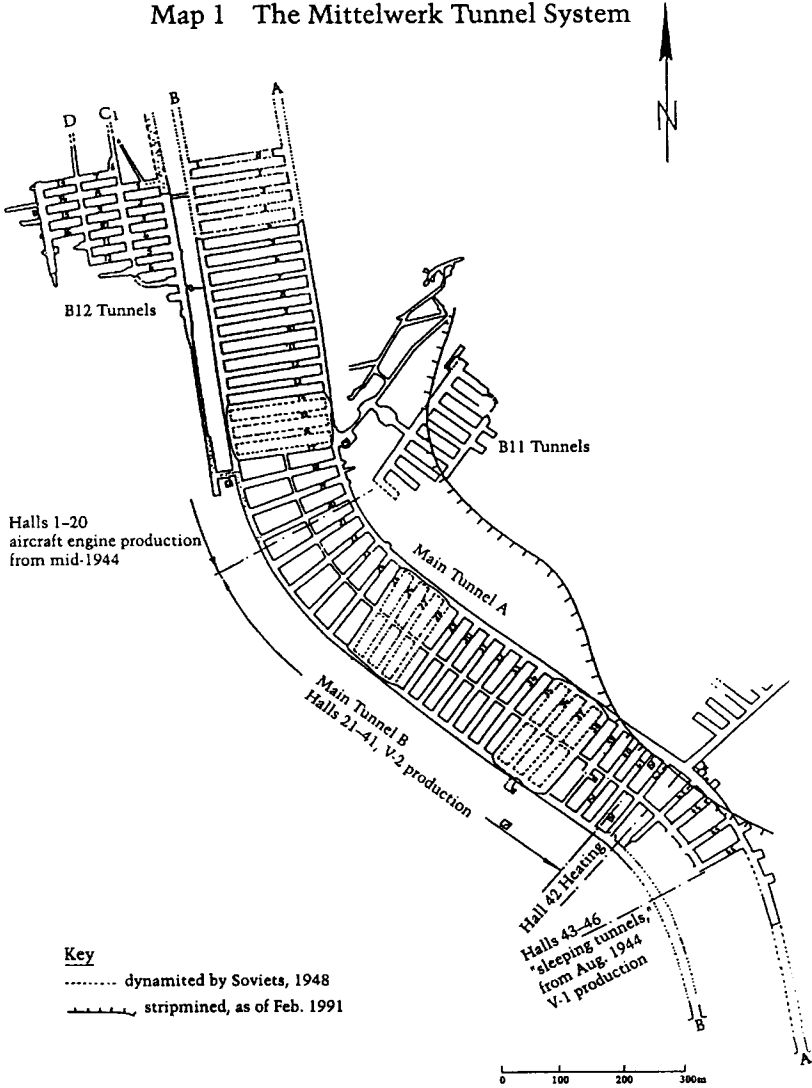
ladders on screens at the Orpheus Theatre, dreams of suffocating in “‘a common dry-cleaning bag’” (756).

The plasticized future envisioned in the Rocket City is rooted in death in more than one way. The Third Reich promoted the historical Mittelwerke as the realization of a progress-oriented, positive technological creation myth; the rocket, Hitler’s great (white) hope and a triumph of ingenuity, was successfully mass-produced in a unique factory. Certain high-placed Nazis—Kammler, Speer, Dornberger and von Braun—needed such narratives of technological success to justify the extravagant expenditure on development and continued testing of the V-2. But if development may have wasted some four million Reichsmarks, more wasteful still was the actual mass production under Berg Kohnstein, which cost up to twenty thousand prisoners their lives. The number of concentration-camp prisoners who died producing the V-2 was far greater than the number of people killed by it in Antwerp and London together: ten to twenty thousand died producing six thousand V-2s, which caused five thousand deaths in Antwerp and London, or an average of two deaths per rocket actually launched (Neufeld 264; Garliński 231). The DNA-shape Pynchon detects in the Mittelwerke provides the genetic justification as well as the symbolic basis for a totalitarian regime’s desire to exterminate “subhumans,” and the Stollen become the real locus of such de-selection.¹³

The Mittelwerke represents a warped attempt to run a mitochondrial factory that (mass) produces in spite of (yet also in part because of) the timed decay built in. Bookkeeping at the Mittelwerke is said to have shown that calculations of projected productivity were based on a life-expectancy for Dora prisoners limited to a mere six months. In *Gravity’s Rainbow*, Etzel Ölsch’s latest architectural “‘deathwish’” creations “are designed to fall down” (GR 300)—a planned obsolescence going beyond Speer’s controversial “Theory of Ruin Value” applied to the New Empire Style (Speer 97, 225). Finally, Pynchon connects the Swastika and SS with “the ancient rune that stands for the yew tree, or Death” (GR 302).

The Rocket system seems an immortal, or at least millennial, technological project: integrating architectural, chemical and biological building-blocks, aiming at perfection, and drawing on propaganda and advertising to sustain an image conducive to public and financial support, yet simultaneously planting the seed of (premature) death in all those subjected to it. The system signifies not only for Nazi eugenics but equally for both industrial slavery and the abuses of nature Carson exposed—two of which, at least, Pynchon combines in “Plasticity’s central canon [. . .] often [. . .] taken for Nazi graffiti” (GR 249, 250).

Map 1 The Mittelwerk Tunnel System



Map courtesy of the Kz-Gedankstätte Mittelbau-Dora.

German industrialist Walter Rathenau laments that Nazis think they would “rather hear about what you call “life”: the growing, organic Kartell. But it’s only another illusion. A very clever robot. The more dynamic it seems to you, the more deep and dead, in reality, it grows. Look at the smokestacks” (167). The industrial, cartel and chemical architectures all find their origins in the German “die” industry, from Kekulé to the IG, while the Frankensteinian life-like organization may take the form of state-building in the body politic, incorporation of legal bodies, or the mock-dead War (131)—organic structures impersonating life but favouring death (166).

2.C: Prometheus Unbound

In the confusion between “life-death priorities” (GR 431) and (re)production, we can return to the third mythic type, the immortal god Prometheus, who in Greek mythology had to re-grow himself every night after being disembowelled every day as a punishment. I mentioned above how the myth of Prometheus was used during the Enlightenment and how—as Plasticator more than Pyrophoros, and heralded by patriotic rhetoric—he found particular favor as a technological champion in the nineteenth- and twentieth-century United States. But the American Prometheus had an evil twin who was also being re-grown. In another Promethean narrative strand, tampering with or even redesigning Nature remained hubristic. At this pivotal mythic point, the inherited myth is critically reworked from creation to caution, and Pynchon’s mythography (in addition to using DNA’s new but fundamental symbolic power) relies on this alternative strand, particularly as developed in literature. For it was Prometheus’s Enlightenment relative Dr. Faustus and his Romantic cousin Victor Frankenstein who resurrected Hesiod’s mythic overreacher.

Whereas the story of Faust warned against man’s offending God with his technological creativity and ambition, *Frankenstein* is much more modern. Victor Frankenstein sins not against a god but against nature and natural reproduction. When his scientific mind tells him first to “have recourse to death” to create solipsistic life (Shelley 35), he negates natural reproductive cycles and the rights of matter (Dalsgaard, MM 80–81). His synthetic, masculine creative impulse and sins remained very much alive at the time Pynchon wrote *Gravity’s Rainbow*. Vast nuclear weapons systems had turned technological creativity suicidal, while the space race had extended the technological phallus beyond Mother Nature toward a dead moon, seriously displacing the libido of thousands of engineers in the process. Pynchon, however, updates the Frankenstein branch of the Prometheus myth to show the

changed position of the scientist or engineer in a postindustrial, computerized and vastly more complex organizational framework.

3: Technological Determinism and Social Constructionism

Pynchon's sympathetic treatment of technological offenders like Pöckler and Blicero, locating and rehearsing their needs within a larger framework of interior and exterior motivation, reveals his conviction that it is the advancement of a technological, capitalist system (in addition to a certain mechanizing mind-set) which abuses natural processes for profit. His warnings are directed less against individuals than against the overarching thought systems (Heidegger's "rationality" or Ellul's "technique") which grant technology such autonomous power. But if *Gravity's Rainbow* seems informed by a deterministic view of technological fate, in practice Pynchon rehearses and analyses the arguments through characters who experience paranoia or who believe that, unpleasant as his use of it may be, man is still in charge of technology.

In one such rehearsal, Pynchon has Enzian conclude that the war is not about politics, which is merely theatre to distract people from the vampirism of autonomous (undead) technology: "secretly," he meditates, the War "was being dictated instead by the needs of technology . . . by a conspiracy between human beings and techniques" together taking on a greater identity (a Deity rendering humanity eunuchs) Enzian calls Technology with a capital T (521). This deterministic argument is countered with a quoted constructivist one according to which technology merely responds to "some specific somebody with a name and a penis" who wants to launch a rocket with the specific aim of killing other people. Here destructiveness is a human responsibility, and technology merely a tool whose development a society of Jessica Swanlakes—committed (whether by vague hope, ignorant naïveté or simple faith) to the idea that warfare can have an end and rockets be tested and thus controlled—ultimately accepts and supports as necessary, even when it turns others into vampires (Slothrop), monsters (Enzian) or martyrs (Gottfried) enslaved to rockets and rocketeers (629, 404, 750).¹⁴

Pynchon's attempts to resist the deterministic, manifest destiny of autonomous technology in the metanarrative he is rehearsing put one in mind of Antonio Gramsci's admonition "Pessimism of the intelligence, optimism of the will" (175), which could be the motto of the Counterforce. If Pynchon fails to make the social constructivist argument credible, if we believe Roger Mexico more than Jessica Swanlake, at least Roger, unlike Pointsman (who is intent on proving

“the stone determinacy of everything” [GR 86]), tries to believe in a better scenario or to challenge the sinister one by pissing on Them and joining the Counterforce. Responding as the Counterforce does, however misdirected or futile the effort may turn out, may also be all that can really count in such a predetermined dystopia, for Pynchon too. We are in a “net of information that no one can escape,” or on the inevitable railroad track to Leid-Stadt or Happyville (as if the difference matters any more than that between Pepsi and Coke, or Carlsberg and Tuborg), whether we fight it feebly or not at all. Byron the Bulb, though plugged into the Grid, manages to evade Control and to maintain thoughts of a revolution which would take Phoebus and Enlightenment rationality back to the Dark Ages, but he may never realize his plan to disturb the network of engineering Freemasons before “[e]very bulb in the place burned out, a ceilingful of sooty, sterile eggs” (665). Others, exemplified by the homosexual prisoners, seek to recreate the safety of a repressive regime from fear of a freedom which only *seems* like being abandoned.¹⁵

Gravity's Rainbow raises questions about our relation to the technologized society around us. Does technology run us, or we it? Did we set it in motion, and has it now become autonomous? Has technology created a postmodern predicament of powerlessness, isolation and loss of both identity and democracy? Or is it just a positivist, enclosed epistemological system, a metanarrative—a Rocket, say—which will have to come down or explode at some time? The rocket is a singularity but also, as Deleuze and Guattari suggest, a multitude of differences. It could be an untotalizable system or a transcending totalitarian system. It mirrors some questions we could ask about the place of power and the individual in a multistable postmodern image. Sometimes it looks like a rabbit, sometimes a duck. Likewise, paranoia and anti-paranoia coexist in *Gravity's Rainbow*, but it seems difficult for the character within the text, let alone the critic outside it, quite to see them at the same time.

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Notes

¹Although Ahab partly represents the murderous logic of capitalism, his ambivalence in the “pasteboard mask” scene of *Moby Dick* about whether his opponent is a white screen onto which he projects his feelings of impotence or the embodiment of Evil—“‘be the white whale agent, or be the white whale principal’”—mirrors similar doubts expressed in *Gravity's Rainbow* about whether characters like Blicero are masked manifestations of the System or personally responsible.

²Mumford sketches the thesis that different technological forms articulate distinct political orders in “Authoritarian and Democratic Technics.” He develops his arguments and evidence at length in the two volumes of *The Myth of the Machine*.

³There are also instances of sparkling mythopoesis in *Gravity’s Rainbow*, especially concerning plastics and the link to addiction and sexual gratification. (On literary synthesis, see Jeffrey Meikle 293–99.) But Pynchon’s reworking of familiar components to show new truths has more to do with mythetic evolution and ancestral descent from one historically appropriate manifestation to the next. Even characters like Slothrop participate in this renewing of culturally-authored or mythic figures—Plechazunga, Rocketman, Max Schlepzig—for the postwar age. As the rocket raising episode shows (GR 361), however, society may use mythetic strategies to retain old structures by merely reglossing them.

⁴Edison’s childhood is notoriously invented. Von Braun also controlled the fabrication of his biography, according to the vitriolic Julius Mader (8–9).

⁵Tom Bower explains America’s willingness to “clean up” records of prominent German scientists and engineers, like von Braun, to incorporate them in U.S. weapons-design programs.

⁶Pynchon’s “coil symbol,” or Old Norse sun rune *sól*, or Old High German *sigil* (206) is revealed as a sexual symbol detectable in the “discontinuous” swastika developed from the circular/mandalic sun-symbol (a circle with a cross, rather than a dot, inside) in Wilhelm Reich 134–35. The fragmentation of the original sigil-sign—from cycle into sickle—into SS and swastika might also remind us of Pökler’s ground zero position in “the Ellipse of Uncertainty” at the V-2 testing range in Blizna (GR 425), the quixotic windmills in Blicero’s rune-casting eyes (670, 672), and the Herero-German progression from Südwest to the Schwarzkommando. Moreover, the Erdschweinhöhlens’ axle-tree provides a complex Celtic link to singular warriors, a dying sun and back to the dying ash Yggdrasil of the north (321–22).

⁷On the early career of Prometheus, see Raymond Trousson or, for greater depth, Hans Blumenberg. If Prometheus offended against the gods in order to bring the gift of light and skills to humanity, the Olympians retaliated with Pandora, another technological Trojan horse, bearing dubious gifts herself.

⁸Pynchon has his own take on the light-bringing Phoebus and the Grid (133–34, 647–55, 665, 745).

⁹Benjamin Franklin features in *Mason & Dixon*, but Pynchon’s ambiguous wariness of the character (reminiscent of Melville’s *Israel Potter*) had already appeared in *Gravity’s Rainbow*, where a nameless Polish undertaker rescues Thanatz. Taken in by the Franklin myth “in an American propaganda leaflet,” the undertaker hopes to get direct access to liminal truth by taking a lightning bolt to the head, without realizing that Franklin himself was “given to cosmic forms of practical jokesterism, of which the United States of America may well

have been one" (663–64). Pynchon does present Franklin as a Great Man of sorts, though hardly as an official agent of the United States.

¹⁰Mailer and Wolfe both try to explain technology in terms of the magic or psychology of machinery, while critics have drawn on the concept of the sublime in different ways to explain the awe-inspiring impact of technology on the human imagination: see, for example, Joseph Tabbi; David E. Nye, *ATS*.

¹¹On critics—especially Marx, Marcuse and Ellul—who investigate the potential "soul" or independence or determinism of technology, see Langdon Winner.

¹²They are the mask through (*per*) which the voice of the Corporation speaks or sounds (*sonae*): see Norman O. Brown, chapter 5.

¹³For diagrams of the actual 46 Stollen, see Udo Breger 29.

¹⁴For an in-depth reading of Enzian's meditation, see Luc Herman.

¹⁵See Erich Fromm for a psychological explanation, more ominous than "the existence of foreign totalitarian states" at the time, of the existential inability to live without hierarchy and authority.

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