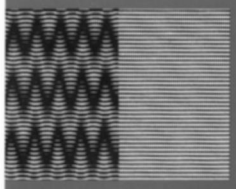

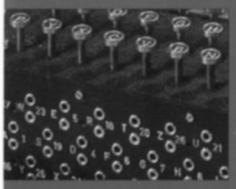

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Cover, top to bottom:
Details of images appearing on pp. 10, 39, 52, 69, 89.

Contents

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Three Pieces of Asphalt

JEFFREY T. SCHNAPP

Vitrified Pipe & Culvert: Turning high-ways into dry-ways

Friction

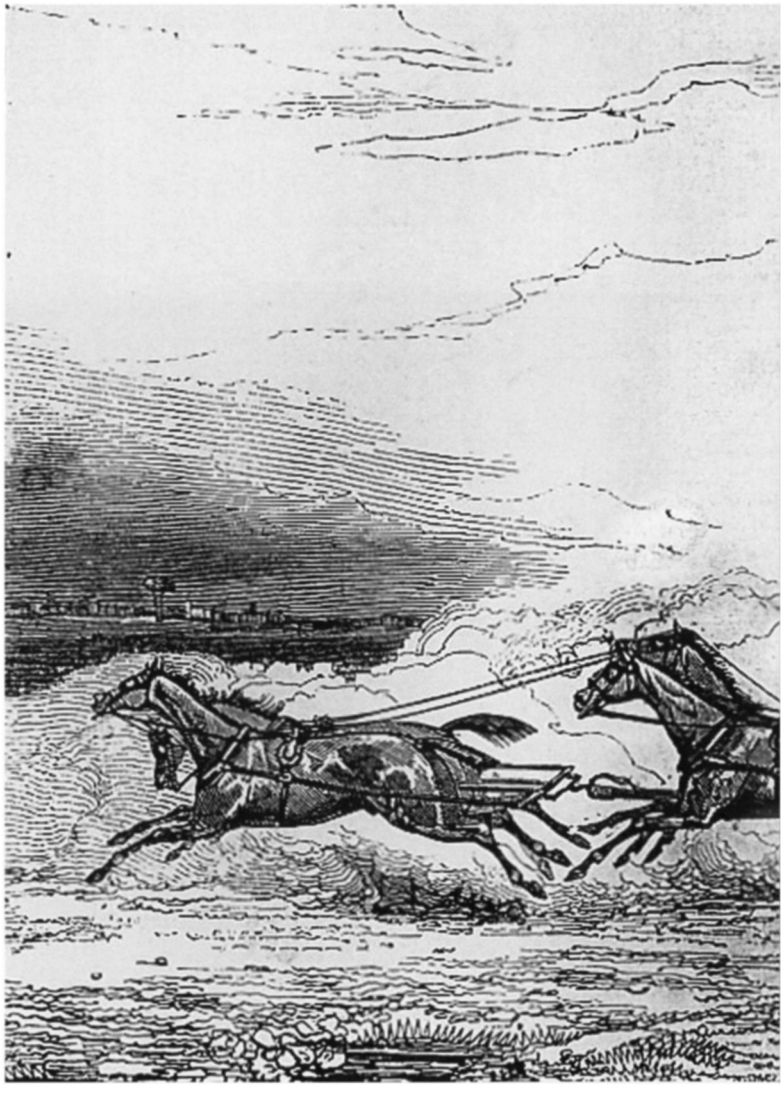
Asphalt erupts on the scene of modernity to redeem the world of industry from the banes of friction and dust. Dust clouds had been around since the beginning of time. But the coaching revolution of the nineteenth century transformed them into signifiers of accelerated movement long before the appearance of the "stream" or motion lines that would indicate velocity in twentieth-century cartooning and graphics. Dust was also what differentiated driver-passengers from pedestrians, the enfranchised from the disenfranchised, within the contours of a nation-state now defined as a transportation grid. The former were the clean, well-dressed dust producers; the latter had little choice but to breathe in clouds of dust (just as today bicyclists inhale motorists' fumes). Dust was the pollutant of the nineteenth century.[1] Asphalt came to the rescue. It cleaned up speed.

The pedestrian's revenge on driver-passengers came in the form of friction. *Attrito, friction, Reibung:* these are but a few of the words that capture the emergence of a new form of resistance between moving vehicles and their immobile supports. Long before the advent of travel by automobile, travel on land, whether on horseback or in carriages, implied overcoming potentially ominous physical obstacles. The atmosphere, hostile peoples, topographical barriers, all ensured that every voyage, from the time of Odysseus to that of Goethe, would be an adventure. To these must be added the erratic support provided by premodern pathways and roadways, thanks to which every attempt to traverse a landscape or even a city street meant confronting ruts, sitting water, unpredictable surfaces. It also meant having to endure swaying to the point of nausea, saddle sores, long successions of bumps and jolts.

The eighteenth- and nineteenth-century revolutions in road building associated with names such as Trésaguet, Telford, and McAdam inaugurated the modern dream of smooth, frictionless travel. But they did so by increasing the speeds attained by conveyances, which merely translated premodern bumps and jolts into a harsh new language of trauma and shock. Since the new roadways were composite surfaces made up of compressed earth, stone, crushed gravel, and lime, and since systematic approaches to drainage were still uncommon, they also

Grey Room 11, Spring 2003, pp. 5–21.

Henry Aiken. *The Road.*
Published in *The Chace, the Turf, and the Road*, 1837.

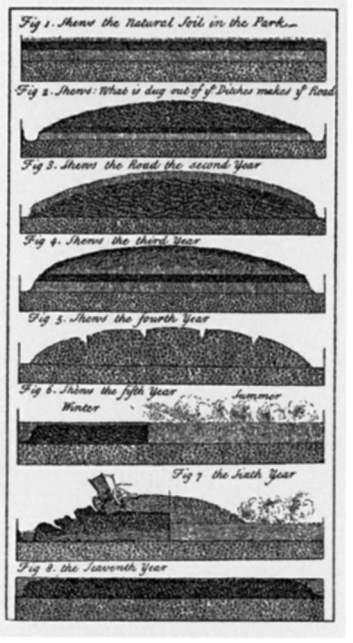


brought with them an even more venerable bane than ruts and dust: viscous mud.

All this, asphalt would remedy, whether applied to sidewalks (Count Sassenay, Paris, 1838), to highways (M. Mérian, Travers, Switzerland, 1849), or to city streets (M. Vaudry, Paris, 1854). The initial experience of asphalt pavements was one of such attenuated resistance, reinforced in turn by the separation of roadways from sidewalks and by developments in suspension technology, that asphalt soon becomes enshrined within the modern imaginary as the material of frictionlessness.[2] If, from an economic standpoint, modernity's dream is the unimpeded circulation of commodities and persons, and, from a phenomenological standpoint, the experience of unimpeded psychic and somatic flow, then asphalt asserts itself as the era's invisible but ubiquitous support. The practical necessities of transport and travel, the rituals and expressions of new forms of selfhood, and modern cultures of recreation from tennis to motor sports to skateboarding will all unfold on an asphalt stage.

Frictionlessness, of course, is little more than a metaphysical fantasy. It represents a secularized version of the transcendental imaginary that once attributed frictionless high-speed travel to the gods. The world after the death of God, however, is a world of skinned knees and fraying tires, a world where every time that friction diminishes, movement accelerates, rendering contact with the pavement ever more wounding and abrupt. It is a world ruled by accidents behind the spectacle of which hums the everyday fact of the mechanical wear and tear that accompanies rapid mechanical motion. Today, thanks to the asphalt revolution, bumps and jolts may have become exceptions, and smoothness and regularity the rule. But the abiding reality of friction reasserts itself, in spectacular form, in the accident and, in productive form, in the controlled stick and slide of speeding wheels.

Asphalt comes not to bury friction but only to alter its nature. The course of technological development is reversed as a result. Until the



Left: ***The Road's Progress.*** **Published in John Loudon McAdam,** ***Remarks on the Present System of Road Making*****, 1823.**

Right: ***His Job Is Waiting.*** **Published in** ***Better Roads and Streets*****, Sept. 1913.**

widespread diffusion of asphalt roadways, the principal challenge for engineers had consisted in *reducing* adhesion to the surface of the road: in freeing wheels and feet from the ground being traversed. After asphalt, wheels and feet have been emancipated; they are no longer grounded. So engineers strive instead to *increase* traction, thereby giving rise to a productive new conception of friction that recovers the word's sexual roots. Friction is frication, *frottage, sfregamento, Reibung:* a rubbing together of surfaces, violent and erotic at once, that induces forgetfulness and bliss. The pedestrian walks about as if in a dream state never looking down at his or her feet. The driver is transfigured into a modern god in the wake of whose passage fields of rubber pellets, skid marks, vehicle fragments and viscous liquids are scattered across the smooth surfaces of the modern roadway-reliquary.

National Standard Paving Machines: What does noise mean? It means energy lost.

Riding the razor's edge

Velox Street Indicators: Prevent accidents—Stop corner cutting.

Asphalted pavement doesn't constitute the necessary precondition for modern motor sports such as grand prix motorcycle racing. (Rally, dirt-bike, and power-boat racing prove the contrary.) But asphalt remains the normative support for speed, its global vernacular.

An experienced road racer reads a circuit like a Tuareg reads the desert sands or a soothsayer reads the palm of her own hand. On every circuit he perceives lines, some clean, some not; braking, turn-in, exit, and shift points; patches, seams, debris fields; rough and smooth spots; an overall level of stick or slipperiness—all informed by the technical characteristics of his bike. Every circuit discloses a universe of pavement

Left: Bruno Paul. Cover art for *Jugend*, August 1896.

Right: *The Race of Death*. Published in *Punch*, 3 June 1903.

variations that speak a language of their own. To begin to translate this private language into a public practice of riding involves a gradual process of familiarization: getting to know the powers and limits of the asphalt's grip, moving one's mental and physical markers forward and back, testing alternative lines in tandem with alternative suspension, tire, and gearing setups. Through trial and error, an ideal performance is gradually crafted that is every bit as precise as the steps that make up a ballet recital. The circuit is marked with a series of invisible action points that must be "hit" with clockwork precision lap after lap. If one is missed, adjustments have to be made for a whole succession of subsequent actions until the time-space sequence is back on track: throttle on or brakes on, downshift or upshift, increase or reduce the lean angle, tighten or widen the line, spin the rear wheel out or keep it in tight, skim the asphalt with your knee or tuck it into the side of the bike.

Because asphalt provides the stage, its every irregularity becomes integral to the show. At once the rider's dearest friend and the foe that punishes every balletic misstep, the asphalt must become a kind of second nature, a firm but slippery second skin experienced at a slight remove: by means of the prosthetic extensions known as tires. Every serious racer makes his peace with the fact that tires have a life and a mind of their own. No two sets are exactly alike, despite all the advances in materials science and production technologies. The same goes for the characteristics of a circuit's asphalt. Some circuits shred tires prematurely, others are gentler. Some compounds or tire profiles stick well on a given circuit or in given conditions or with a given rider and setup but won't last a full race; others will last but don't stick well; others still, will neither adhere nor endure. The pavement's viscosity and grain; the coating of matted rubber, tar, and oil; its temperature and contours all play a determining role along with the suspension characteristics of the bike and the driver's riding style (no two are exactly alike). Racing is a realm of dissimilitude.

For the spectator the circuit looms alluringly at a distance in its ideal geometry, abstract and smooth; for the rider it rushes forth in all of its gritty particularity, and as speed increases so does sensitivity to and intimacy with the pavement's smallest variations. Grip is always relative, and the lingua franca of high-level motorcycle competition is that of the (sometimes barely) controlled slide. A race bike weaves and bobs with undulations, gear shifts, and applications of throttle and brake. It maneuvers like a platform that, however firm, both tilts forward and backward and skates side to side. Braking loads the front; acceleration loads the back. Turns induce slides influenced by the front- or back-loading of the suspension; the throttle will crack the rear wheel loose in a vortex of rubber and smoke if the dosage is sudden; hard braking will slide the front. The strip available for corrections, errors, and passing gets smaller and smaller as velocity approaches race pace. The "line" narrows from a broad swath to a razor's edge on each side of which lie potential disasters: the disaster of dirt, grass, gravel traps, and candy stripes on the inside; the disaster of debris fields of balled rubber, oil, and slick pavement on the outside. To be competitive on an asphalt stage is to inhabit that ultrathin line that separates mastery from catastrophe.

The actual race bears an only partial relation to the ideal, for, in the heat of battle, fairings bang against one another; rival riders dive in and out of imaginary or actual spaces; there are flags, pit boards, and crashes to monitor; the perfect line proves elusive. Most of all, there is a swirl of vibration, commotion, and noise that bears little relation to the smooth high-speed choreography experienced from high atop the stands. Fatigue sets in, legs cramp up, and sweat condenses in helmets as the entire world vanishes into the hallucinatory tunnel vision of the race. No racer enters the tunnel except as a tightly wound ball of nerves. No racer exits it successfully without learning to wed total concentration with no less total relaxation. In the frenzied Zen of motorcycle racing, the razor's edge is inhabited on the tarmac but honed in the mind.

Buvez Jifran: L'apertif au goudron

Tarmac lit

Trinidad Liquid Asphalt for Road Surfacing: Our motto is "always forward"

The triumph of asphalt as a paving surface is accompanied by the material's relative invisibility in twentieth-century literature. Few are the singers of asphalt georgics like the one that concludes the engineer Pedro Juan Larrañaga's *Successful Asphalt Paving*:

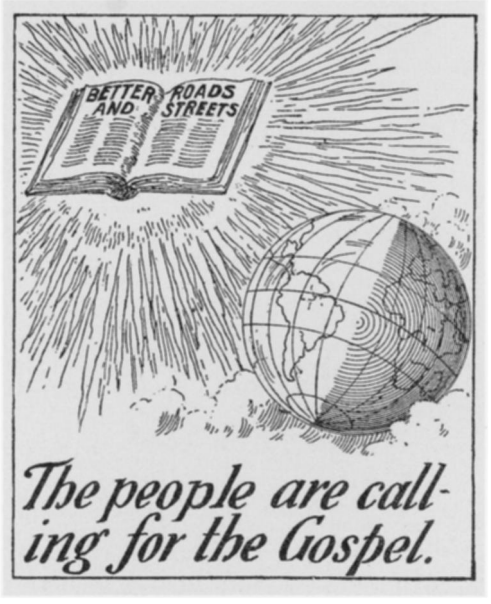
Sears Point Raceway, 22 Sept. 2001. Photo: AFM Motorsports—Team Toss.

> The world today stands at the beginning of the Road Transport Era, with which is intimately linked an era of Hygienization. A clean weatherproof road surface becomes the channel of civilization, along which the other gifts can flow. This clean road will contribute more to education and to the raising of the standard of living than any other known channel. The clean road will be the meeting place of democracy; the Rolls-Royce limousine, the Ford tourer, the cycle and the donkey cart will learn to know and respect each other.[3]

Asphalt may be everywhere within the modern landscape, from highways to sidewalks to courtyards to rooftops to suburban parking lots. It may well promote hygiene, civilization, and democracy. Or, as its critics will counter, it may instead reinforce social control, promote alienation and delinquency, drive nature and humanity from the industrial metropolis. Yet, aside from a brief bubble of excitement in the second half of the nineteenth century, it will mostly be relegated to the domain of the necessary but presupposed. The literature of asphalt is less a literature of pavements than of vehicles, drivers, cyclists, passengers, pedestrians, cops, and thugs. The tarmac hovers beneath the perceived surface of the modern landscape like a hidden god.

The ubiquity = invisibility paradox has powerful precedents in Western road literature. From the epic of Gilgamesh to Virgil's *Aeneid* and beyond, travel narratives long highlighted the perils of sea voyages, but when describing travel on land they favored description of bandits, monsters, and prodigies over attention to the roadway's physical characteristics. The knights of medieval romance thus speed through forests atop their glistening steeds with no less indifference to what is underfoot than do the runners of ancient Greece across the plain of Marathon. Even as meticulous a poet as Dante tells us next to nothing about the contours of the *diritta via [che] era smarrita* [the straight path that was lost], but a great deal about the surrounding landscape, its spiritual significance, his inner state.

This regime of descriptive omission starts to shift when scientifically built turnpikes and city



Top: ***The Road.*** **Cover of** ***The Highway Magazine*****, February 1918.**

Bottom: ***The People are Calling for the Gospel.*** **Published in** ***Better Roads and Streets*****, January 1915.**

Opposite: H. Wiatt. ***Mock-Adamizing.*** **Published in R. Devereux,** ***The Colossus of Roads*****, 1936.**

streets begin to displace premodern and early modern roads, thanks to the revolution inaugurated by Trésaguet, Telford, and McAdam in the late-eighteenth century and brought to term in the present age of asphalt. No longer understood as self-supporting artificial constructions akin to buildings or as informal byways subject to every whim of nature, modern roadways and city streets assume the form of a kind of *artificial or enhanced nature,* a smooth and impermeable membrane thinly applied over a natural ground. The symbolic impact of the shift is as significant as its practical consequences. From fortresslike emblems of human resistance to a hostile natural landscape, roads evolve instead into intimate prolongations of the rural and urban landscapes to which they grant access—but under new conditions of cleanliness, constancy, and perceptibility. Rapid or unhindered movement, irrespective of season or climate, becomes routine; jolting, rocking, and noise are reduced; circulation becomes the norm. All of which nourishes a new sociopolitical imaginary that envisages transportation networks—be they Parisian boulevards, English turnpikes, or American superhighways—as the arterial system of a living collective body and driving/walking/cycling within them as a form of intensified communion with the collectivity or connection to the world. In short, macadam and its successor, tarmac, become privileged staging grounds for mobile concepts of selfhood, statehood, and society.

Two interrelated road literatures arise as a result. On the one hand, the Western literary imagination discovers the romance of the narrow footpath, the remote byway, the ancient Roman road in ruin, the mountain trail, the "off road" and "off the beaten path." All are embraced as the emblems of a simpler, less crowded, more adventurous era or ethos. All are imagined as "closer" to nature, irrespective of the degree of violence they inflict on the landscape. To these various "offroad" roadways a legion of late-nineteenth century books will be dedicated bearing nostalgic titles such as *The Brighton Road: Speed, Sport and History on the Classic Highway* and *Au bon vieux temps des diligences,* much as today, in the era of superhighways and intercontinental air travel, off-road adventure travel proliferates alongside waves of nostalgia for once major but now minor asphalt rural byways such as Route 66 (the "Mother Road" in John Steinbeck's *The Grapes of Wrath*).[4] On the other hand, a literature proper of the macadam and asphalt comes into being, com-

posed in an alternately enchanted or disenchanted key. The oscillation is familiar from the writings of De Quincey and Baudelaire. Smooth modern pavements provide a platform for exploring new modes of consciousness and desire shaped by the love of evanescence, novelty, surprise, and speed. They also open up an arena where cars, carriages, and horses form a "moving chaos out of which death gallops forth from all sides at once": a nightmarish realm, that is, of violent collisions between the ideal and the real, between speed-induced reveries and the harsh materiality of the tarmac, between aspirations to social justice and new freedoms and the enduring fact of injustice and subjugation.[5]

This second literature finds its homeland on the freshly tarred sidewalks and streets of nineteenth-century Paris. Straightened and paved by Louis Napoleon, they were experienced as a magic carpet ride by early visitors such as the protagonists of Zola's *La Curée:*

> They continued to roll and it seemed to them that the car was gliding along a carpet as it descended that infinite, ruler-straight roadway that had been rigorously designed so that they could avoid the dark alleyways. Every boulevard became a hallway of their hotel. The sun's joy smiled on the fresh facades, lit up their windows, struck the canopies of boutiques and cafés, warmed up the asphalt under the hurried steps of the crowd.[6]

The city qua hotel provides a thrilling home away from home where the carpetlike roadway becomes identified with that sense of desublimation, expanded agency, and joyous fear that, in his essay *The English Mail Coach,* De Quincey had called "the glory of motion."[7] Here and elsewhere within this new literature (which will reach its apogee more than a century later in novels such as Jack Kerouac's *On the Road*), motion, whether urban or rural, is "glorious" because it unbinds and thereby creates the preconditions for new, intensified, unexpected couplings. So much so that for Zola's Renée even the vicarious observation of sidewalk traffic is enough to stir up long-buried desires:

> With her head in the doorway, Renée stood silently observing the crowds, cafés, and restaurants, an endless succession of which paraded before her. She had become deeply serious, lost in the sort of vague longings that make up the reveries of women. That ample sidewalk, swept by girls' dresses and resonating with the distinct and familiar sound of men's boots; that gray asphalt across which galloped pleasures and easy loves, awakened dormant desires. It made her forget the idiotic dance which she had left behind and allowed her instead to contemplate joys far more refined.[8]

M. Duse. Pirelli advertisement. Published in *Rivesta illustrata del Popolo d'Italia*, May 1938.

The boulevard seduces because it constitutes an artificial paradise whose pleasures are clean, quick, and inexhaustible. It glows under the perpetual light of gas lamps and the sun. Arcades, restaurants, and cafés are its flora. Its fauna is a new humanity composed of pavement-pounding, asphalt-adoring *flâneurs* and *flâneuses:* as the literature would have it, drivers, passengers, businessmen, shoppers, ladies, bohemians, artists, prostitutes, gypsies, and wandering Jews. Its oceans assume the form of surging crowds.[9] Fashion provides the seasonal variations.[10] Capital and credit provide the fuel. Asphalt sustains all the glitz and gloss.

It may come as a surprise to contemporary readers for whom asphalt belongs to the blasé realm of the everyday that the literary imagination of Zola's era compacted this mobile metropolitan universe into glistening images of the tarmac itself, whether diurnal or nocturnal. An abundance of descriptions confirm the point. "After the shower," the Goncourts encounter "washed asphalt, brilliant with white reflections, sparkles, shadows stretched as if across water."[11] Zola waxes lyrical in a similar vein, fondly recalling when "the cafés alone were still flickering away and streaking the asphalt with sheets of light."[12] For Léon in *Madame Bovary,* contact with a smooth black pavement transfigures every woman into a potential object of desire. Indeed, he scorns "all that which doesn't tread the boulevard with a glossy foot."[13] The conceit recurs in Maupassant as a full-blown asphalt apotheosis:

> Gay and trembling, the crowd advanced under the fiery haze and seemed as if in the midst of an apotheosis. Faces were gilded. Purple reflections shot through black hats and clothing. The sheen of shoes kindled flames on the asphalt sidewalk.[14]

The scenario recurs elsewhere in the new literature of the tarmac. The flow is smooth but there are secret frictions in the crowd. Dresses sweep the walkway, stirring up fields of static electricity. These collect in well-shod female feet. Sparks shoot out, flames erupt. The shock is discharged and induces muscular spasms at the moment of contact:

> Boulevards are what most enthrall me about Paris. Every morning when I arrive and cross one, my feet experience the galvanic contraction produced

by that same asphalt sidewalk across which, every evening, so many prostitutes shuffle their shoes and sweep their noisy dresses. When the hour comes at which gas-jets shine in mirrors and knives clatter against marble tables, I set out on a peaceful walk, immersed in the smoke of my cigar, looking straight through every women who passes. Here prostitution spreads out its wares. Here eyes twinkle! I have no idea where I'll be spending the night.[15]

Everything shines—eyes, faces, mirrors, flames—against and atop the glistening black pitch. Everything is on display, on sale, on the move. The streetlights may still be burning gas, but the sidewalk is always already electrified. Its asphalt is hot, labile, sexed up like the freeway flyways of J.G. Ballard's *Crash* where cars come to collide and collide to come.[16]

It now becomes possible to address the question of what, from the standpoint of the imaginary of modern materials, asphalt *added* to the prior culture of macadam, aside from practicalities like reduced friction and the elimination of mud. The answer lies in its double nature as a product of the era of industry and as a naturally occurring malodorous, combustible mixture of hydrocarbons. The former ties asphalt to progress and to the mobile glamour of the here and the now; the latter to primeval residues formed over many millennia out of Paleozoic sludge.[17] Asphalt is *Jew's pitch,* mobile but fixed, filthy but clean, archaic but of the future. A techno-primitive compound, it contributes not only to "the glory of motion" but also to the resurfacing of elemental urges and certitudes: raw sexuality, violence, tyranny, crime, and corruption. Just as the former animates the enchanted literature of the tarmac, so the latter animates its disenchanted double. For it, pitch and tar are hot infernal substances, associated not with freedom but with confinement and bondage. The boulevard becomes the fifth *bolgia* of Dante's Hell. The artificial paradise turns into an asphalt jungle—such as the one immortalized in W.R. Burnett's 1949 novel and John Huston's 1950 film of the same title—whose voice is the police radio with its endless succession of accidents, assaults, robberies, and homicides.[18] Or the flip side of the same torrid coin: the asphalt desert.

Rimbaud was among the first explorers of this nightmarish realm in his prose poem "Métropolitain":

From indigo straits to Ossian's seas, on pink and orange sands bathed by vinous skies, crystal boulevards have freshly risen and crisscrossed, settled by poor young families fed by greengrocers. Nothing rich—The city!

From the bituminous desert, in headlong flight with sheets of fog stretched in dreary bands across a sky that bends, recedes, descends,

Piero Portaluppi. *Il problema della circolazione a Milano.* Published in *Guerino Meschino*, 31 August 1924.

made of the most sinister black smoke that the Ocean in mourning can produce: helmets, wheels, boats, rumps—The battle![19]

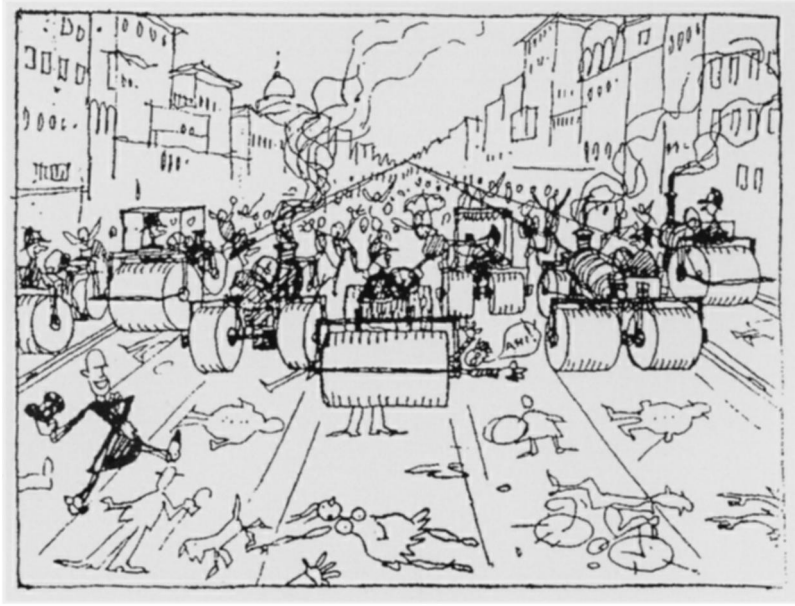
Behind the glossy surfaces of crystal boulevards lies the harsh truth of the bituminous desert. The visionary flees the city and seeks out the higher reality of battle. But there are many whom he leaves behind. Among them is the poet-prisoner of Oscar Wilde's *Ballad of Reading Gaol,* who is hemmed into a lifeless world in which "Silently we went round and round, / The slippery asphalte yard; / Silently we went round and round / And no man spoke a word"; a world in which "The very mud cried out for blood, / To the thirsty asphalte ring: / And we knew that ere one dawn grew fair / Some prisoner had to swing."[20]

The "yard" of the modern prison is always paved: for the "safety" and "protection" of the prisoners.

This negative potential was already perceived by early observers of the tarmac, such as Mark Twain. In Twain's mind, the magic carpet was simply another weapon in Louis Napoleon's war chest:

> He is annihilating the crooked streets and building in their stead noble boulevards as straight as an arrow—avenues which a cannon ball could traverse from end to end without meeting an obstruction more irresistible than the flesh and bones of men—boulevards whose stately edifices will never afford refuges and plotting places for starving, discontented revolution breeders. The mobs used to riot there, but they must seek another rallying point in future. And this ingenious Napoleon paves the streets of his great cities with a smooth, compact composition of asphaltum and sand. No more barricades of flagstones—no more assaulting his majesty's troops with cobbles.[21]

In the hurried steps of the festive urban crowd Twain hears the hoof beat of marching troops; in the flow of traffic he perceives not freedom but cannon balls hurtling toward unruly mobs; behind the gallop of pleasures and furtive loves he sees a tyrant's will to subdue. But just as the removal of cobblestones disarms the urban proletariat, so it arms the middle classes, caricatured in Victor Hugo's *Stability Is Guaranteed* as friends of the tarmac and foes of 1789 and 1848:



Strolling out along the asphalt and macadam,
I earn my daily three hundred francs on the market,
Money today flows just like water from a spring;
Masons make three pounds and ten pence,
Superb; deep down inside, Paris makes sense.[22]

For the poem's speaker, unlike Hugo, it all makes perfect sense. The modern metropolis and its tentacular highways may forever be changing, but stability is ensured by a new socioeconomic reality founded upon speculation, credit, and the assumption of risk. And as commodities circulate and money flows, so does humanity in an age of asphalt that remains our own, alternately enchanted and disenchanted with the ride.

Tarvia*: The modern road binder—preserves roads, prevents dust (dust is expensive).*

Notes

1. "It is a matter of common knowledge that our great infantile mortality is largely attributable to dust, and that the inhaling of dust—organic and inorganic—laden air of the public highways seriously affects the throat, nose, and lungs. That it is the cause of sore throat, nasal catarrh, and phthisis, and that it is generally conductive to a low state of health is a fact recognized by the medical profession." [J. Walker Smith, *Dustless Roads Tar Macadam—A Practical Treatise for Engineers, Surveyors, and Others* (London: Charles Griffin & Co., 1909), 1.]

2. Frictionlessness was first formulated by McAdam: "These [founding] principles [of the modern roadway] are, that a road ought to be considered as an artificial flooring forming a strong, smooth, solid surface, at once capable of carrying great weight, and over which carriages may pass without meeting any impediment." [John Loudon McAdam, *Remarks on the Present System of Road Making* (London: Longman, 1823), 37.]

3. Pedro Juan Larrañaga, *Successful Asphalt Paving: A Description of Up-to-Date Methods, Recipes and Theories, with Examples and Practical Hints, for Road Authorities, Contractors, and Advanced Students* (Richard Clay: London, 1926).

4. The literary careers of late-nineteenth-century popular writers such as Charles G. Harper were largely built around old- and off-road themes. Harper was the author of, among many other works, *The Dover Road; Annals of an Ancient Turnpike* (London: Chapman & Hall, 1895); *The Portsmouth Road and Its Tributaries: To-day and in Days of Old* (London: Chapman & Hall, 1895); *The Bath Road; History, Fashion, & Frivolity on an Old Highway* (London: Chapman & Hall, 1899); *The Newmarket, Bury, Thetford, and Cromer Road; Sport and History on an East Anglian Turnpike* (London: Chapman & Hall, 1904); and *The Brighton Road; Speed, Sport, and History on the Classic Highway to the South* (London: Chapman & Hall, 1906). He also authored motorcar, motorcycle, and bicycle touring guidebooks.

5. "[C]e chaos mouvant où la mort arrive au galop de tous les côtés à la fois." Charles Baudelaire, "Perte d'aureole," in *Petits Poèmes en prose, Le Spleen de Paris,* ed. H. Lemantre (Paris: Dunod, 1997), 48.

6. "Ils roulaient toujours, et il leur semblait que la voiture roulait sur des tapis, le long de cette chaussée droite et sans fin, qu'on avait faite uniquement pour leur éviter les ruelles noires. Chaque boulevard devenait un couloir de leur hôtel. Les gaietés du soleil riaient sur les façades neuves, allumaient les vitres, battaient les tentes des boutiques et des cafés, chauffaient l'asphalte sous les pas affairés de la foule." [Émile Zola, *La Curée,* vol. 1 of *Les Rougon-Macquart,* ed. A. Lanoux and H. Mitterand (1872; reprint, Paris: Gallimard, 1963), 497.]

7. The title of the lead section of *The English Mail Coach* bears the title "The Glory of Motion." See vol. 13 of *The Collected Writings of Thomas De Quincey,* ed. D. Masson (Edinburgh: Adam and Charles Black, 1890), 270–300. When the text first appeared in *Blackwood's Magazine* in 1849, it bore the title "The English Mail-Coach, or the Glory of Motion." On De Quincey and the early literature of speed, see Jeffrey T. Schnapp, "Crash (Speed as Engine of Individuation)," *Modernism/modernity* 6.1 (January 1999): 1–49.

8. "Renée, la tête à la portiere, resta silencieuse, regardant la foule, les cafés, les restaurants, dont la file interminable courait devant elle. Elle était devenue toute sérieuse, perdue au fond de ces vagues souhaits dont s'emplissent les reveries de femmes. Ce large trottoir que balayaient les robes des filles, et où les bottes des hommes sonnaient avec des familiarités particulières, cette asphalte grise où lui semblait passer le galop des plaisirs et des amours faciles, réveillaient ses désirs endormis, lui faisaient oublier

ce bal idiot dont elle sortait, pour lui laisser entrevoir d'autres joies de plus haut goût." [Zola, *La Curée,* 446.]

9. The ocean = crowd equation is ancient, of course, but it was recast on the newly paved surfaces of the industrial metropolis. See, for instance, such passages as "le pas de tout ce monde sur l'asphalte, c'est le grondement d'une mer"; and "la foule . . . c'était un immense flot ondulant sur l'asphalte." Edmond Goncourt and Jules Goncourt, *Journal,* vol. 2 of *Journaux,* ed. A. Ricatte (1878; reprint, Paris: Flammarion, 1959), 1203; and Gustave Flaubert, *L'Éducation sentimentale* (1869; reprint, Paris: Les Belles Lettres, 1942), 85.

10. "Scènes de perrons d'hôtels ou des parcs héréditaires et de l'asphalte et de la grève, le monde contemporain avec sa fête qui dure toute l'année: voilà ce qui nous montrent ces rares chefs-d'oeuvre places en des main de grandes dames." [Stéphane Mallarmé, *La Dernière mode,* in *Oêuvres complètes,* ed. H. Mondor and G.J. Aubry (1874; reprint, Paris: Gallimard, 1965), 714.]

11. "Après une ondée, l'asphalte brillant, lavé, tout plein de reflets blancs, de lueurs, d'ombres allongées comme dans l'eau." [Goncourt and Goncourt, *Journal,* vol. 1 of *Journaux,* ed. Ricatte (1863; reprint, Paris: Flammarion, 1959), 1280.] Even when they reflect upon urban filth, the Goncourts prefer the asphalt jungle to its natural counterpart: "Jamais je n'ai eu l'oeil ni le coeur plus réjouis qu'à voir ce pâté de plâtre, tout barbouillé de grandes letters, tout sali, tout écrit et puant si bien Paris. Tout est à l'homme içi; à peine un mauvais arbre, venant mal dans une crevasse d'asphalte;—et ces laides façades me parlent comme ne me parle point la nature. Les générations de notre temps sont trop civilisées, trop perfectionnées, trop pourries, trop savantes, trop factices pour faire leur bonheur avec du vert e du bleu." [Goncourt and Goncourt, *Journal,* vol. 1, 252.]

12. "[L]es cafés seuls flambaient encore, rayant l'asphalte de nappes lumineuses." Zola, *La Curée,* 453.

13. "[T]out ce qui ne foulait pas d'un pied verni l'asphalte du boulevard." Gustave Flaubert, *Madame Bovary,* ed. R. Dumesnil (1857; reprint, Paris: Les Belles Lettres, 1945), 76. There is a suggestive play here on the notion of *verni* as "varnished" (as in the varnished surface of patten leather) and the word's slang meanings of "drunk," "lucky," and "immune to loss." Compare Proust, for whom more than sixty years later, the key identification is between the tarmac and the city's shimmer: "retrouver l'asphalte et tout l'éclat du monde Parisien." Marcel Proust, *À l'ombre des jeunes filles en fleur,* vol. 1 of *A la recherche des temps perdus,* ed. P. Clarac and A. Ferre (1918; reprint, Paris: Gallimard, 1962), 675.

14. "La foule gaie, palpitante, allait sous cette brume enflammée et semblait dans une apothéose. Les visages étaient dorés; les chapeaux noirs et les habits avaient des reflets de pourpre; le vernis des chaussures jetait des flammes sur l'asphalte des trottoirs." [Guy de Maupassant, *Contes et nouvelles,* ed. A.M. Schmidt and G. Delaisement (1883; reprint, Paris: Albin Michel, 1959–1960), 218.]

15. "Ce qui me semble plus beau de Paris c'est le boulevard. Chaque fois que je le traverse, quand j'arrive le matin, j'éprouve aux pieds une contraction galvanique que me donne le trottoir d'asphalte sur lequel, chaque soir, tant de putains font trainer leurs souliers et flotter leur robe bruyante. À l'heure où les becs de gaz brillent dans les glaces, où les couteaux retentissent sur les tables de marbre, j'y vais m'y promenant, paisible, enveloppé de la fumée de mon cigare et regardant à travers les femmes qui passent. C'est là que la prostitution s'étale, c'est là que les yeux brillent!—Je ne sais pas

où je vais loger." [Gustave Flaubert, *Correspondance* (1845; reprint, Paris: L. Conard, 1926–1954), 106–107.]

16. The notion of sexual friction is present even in otherwise innocent fictions such as W.S. Godwin's *Asphalt Soliloquy:* "I bare my breast to your feet / And cover the roof o'er your head, / Dry the walls from cellar to garret complete / Then polish the shoes you tread." Printed in T. Hugh Boorman, *Asphalts, Their Sources and Utilizations—Asphalts for Dustless Roads* (New York: Comstock, 1908), 7 (st. 5).

17. The dualism is nicely captured in Godwin's *Asphalt Soliloquy:* "Although with pedigree somewhat mixed /. . . My place in civilization is fixed, / With my virtue and purity tried." Boorman, st. 1, 1).

18. I am echoing W.R. Burnett's own words in his afterword to Ben Maddow and John Huston, *The Asphalt Jungle—A Screenplay* (Carbondale: Southern Illinois University Press, 1980), 145: "I wanted to start the picture just as it was started in the novel, with the horrific news of the nightly toll of crime coming in over the Commissioner's radio, the voice of the asphalt jungle." The novel originally appeared as W.R. Burnett, *The Asphalt Jungle* (New York: A. Knopf, 1949).

19. "Du détroit d'Indigo aux mers d'Ossian, sur le sable rose et orange qu'a lavé le ciel vineux, viennent de monter et de se croiser des boulevards de cristal habités incontinent par de jeunes familles pauvres qui s'alimentent chez les fruitiers. Rien de riche. —La ville. Du désert de bitume fuient droit, en déroute avec les nappes de brumes échelonnées en bandes affreuses au ciel qui se recourbe, se recule et descend formé de la plus sinistre fumée noire que puisse faire l'Océan en deuil, les casques, les roues, les barques, les croupes.—La bataille!" [Arthur Rimbaud, *Illuminations,* in *Oeuvres poétiques* (1886; reprint, Paris: Flammarion, 1964), 167.]

20. Oscar Wilde, *Ballad of Reading Gaol,* 4.7 and 3.11, in *The Works of Oscar Wilde,* ed. Robert Ross (1896; reprint, London: Methuen, 1909).

21. Mark Twain, *The Innocents Abroad* (1867; reprint, Hartford: American Publishing Co., 1869), 157–158.

22. "En flânant sur l'asphalte et sur le macadam, / Je gagne tous les jours trois cents francs à la bourse / L'argent coule aujourd'hui comme l'eau d'une source; / Les ouvriers maçons ont trois livres dix sous, / C'est superbe; Paris est sens dessous dessous." [Victor Hugo, *La Stabilité est assurée,* in *Les Châtiments,* ed. P. Berret (1853; reprint, Paris: Hachette, 1932), 530.]

Konstantin Raudive.
From *Breakthrough*, 1971.
Photo: Bill am Sonntag.

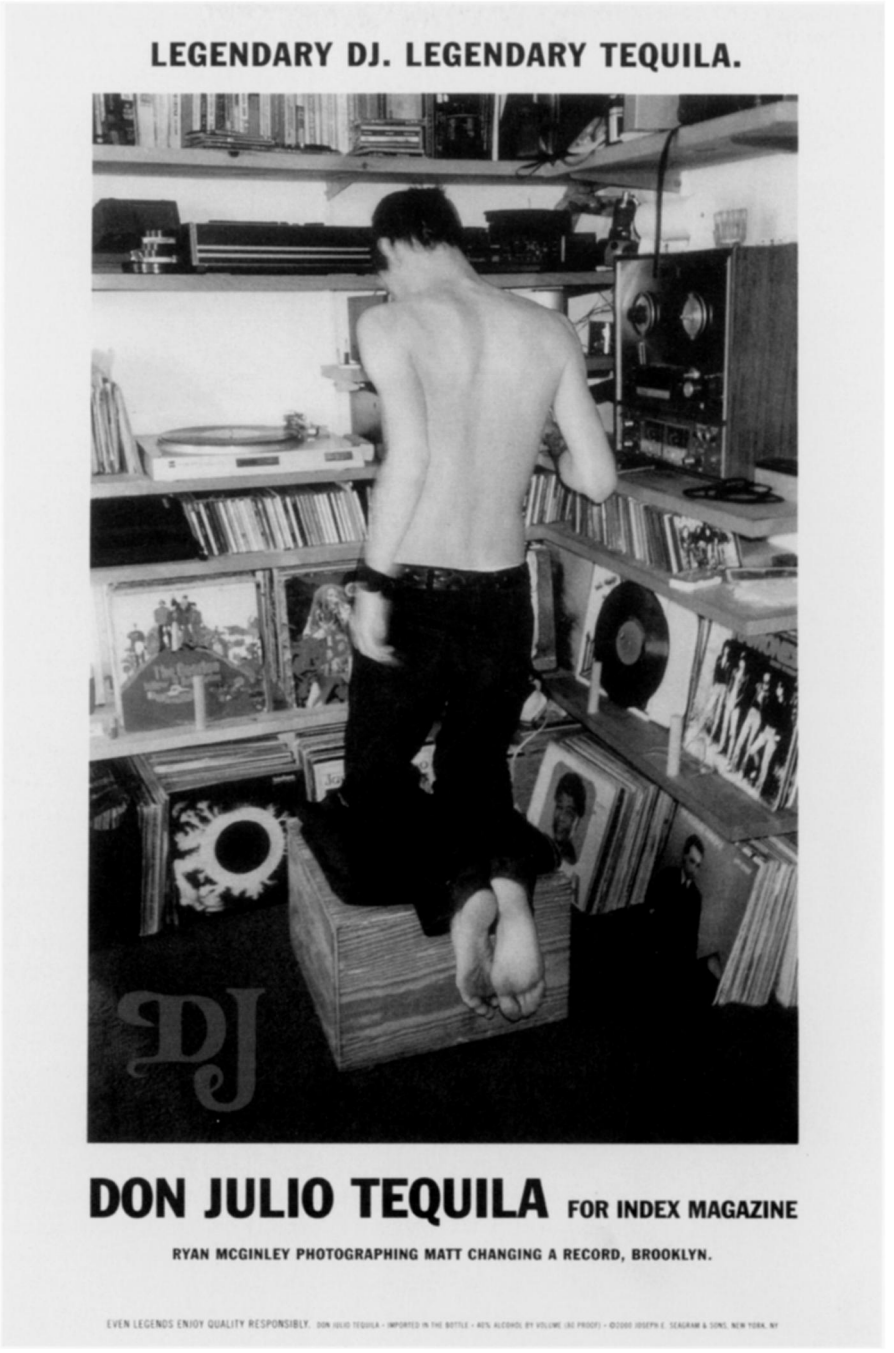
An Academic Cut-Up, in Easily Digestible Paragraph-Size Chunks; Or, The New King of Pop: Dr. Konstantin Raudive

MIKE KELLEY

This essay was written for inclusion in the catalogue of the exhibition Sonic Process, *organized by the Centre Pompidou in Paris in 2002. The show is representative of a recent trend in which sound art–related exhibitions are being mounted by institutions traditionally associated with visual culture. As I mention in the following essay,* Sonic Process *and similar contemporary shows differ from earlier museum exhibitions of sound art (which tended to focus upon sound works that functioned in a sculptural manner or reflected an experimental approach to sound production related to twentieth-century avant-garde musical composition) in its embrace of popular musical forms such as DJ-based dance music. Such an embrace is possible since the critical rhetoric attached to contemporary dance music is derived from avant-garde sources. Because much of this music is composed of samples of preexisting records and other sound sources that are radically reconfigured, modernist theories of collage, fracture, and appropriational strategies can be easily applied to them. William S. Burroughs's famous "cut-up" technique of literary composition, inspired by modernist visual art practice, is the most cited precursor for this musical trend. As a humorous response to the "academization" of Burroughs's theories, I have "cut up" my own essay, though in a thoroughly polite manner so that its original sense may still be discerned. This is intended as an ironic comment on what I consider the essentially conservative nature of much of the popular music that is, wrongly I believe, linked to the radical intentions behind Burroughs's practice. The art institutions' recent embrace of such popular forms of music, which are diluted versions of more complex and radical sources, is, I believe, a tactic designed not to re-evoke historical precedents but to neuter them, to depoliticize them by presenting them as harmless fun, as popular amusements.*

My project for Sonic Process *was made in collaboration with the musician Robin Rimbaud, who performs under the name Scanner. The*

Grey Room 11, Spring 2003, pp. 22–43.



starting point of the project was a reexamination of the Electronic Voice Phenomena (EVP), whereby "voices of the dead" are recorded on electronic equipment. I have been working, myself, with this technique in a musical context since the late-seventies. I postulate the importance of such extramusical sound experiments as influential precedents for the new "electronica," a premise proven by several recent CD releases of EVP-related material, including a "tribute album" featuring musicians associated with the contemporary experimental pop music scene.

—Mike Kelley, 2003

A liquor advertisement from *Index* Magazine (March 2001) uses the "radical anonymity" of the DJ as a hipster selling point. A shirtless young man, identified as "Matt" is shown with his back toward the viewer. This eroticized image is titled in seeming contradiction, given the "anonymity" of the DJ, "Legendary DJ. Legendary Tequila."

One issue that I hope to address through the use of trance channelers in live concert is the so-called schizophrenic nature of much contemporary art. Much of the rhetoric of this aesthetic is indebted to the writings of Gilles Deleuze and Félix Guattari. Instead of describing schizophrenia as pathological, Deleuze and Guattari stress the positive aspects of the condition, praising the schizophrenic's capacity to range across mental fields to transcend the bureaucratization of the mind. They dismiss the psychoanalytic desire to interpret unconscious production, which they describe as having no significance or meaning.[14] Nonmeaning, thus naturalized, becomes the basis for an abstract and anticritical aesthetic—one that, on the surface, emulates the "schizophrenic" effect of fracture. One aspect of the so-called voice phenomenon that is often commented upon is the meaningless and garbled nature of the recorded utterances. This has been explained as the result of faulty reception of spirit transmission, or—more interestingly—as representing the degraded mental state of the "spirits." The scrambled babblings on the tapes have been interpreted as the tortured voices of those in Hell, as the taunts of demons, or as the by-products of some numbing mental process that occurs after death. The "voices" could be described as schizophrenic in nature; however, relative to the voice phenomenon, this description could hardly be understood as a positive one. Writers for the supernaturalist periodical *Fate*, in response to Jürgenson's recordings, came to the conclusion that "intelligence seems to deteriorate rapidly after death."[15] And, alarmed by the disjointed nature of the voices, psychic researcher R.A. Cass warned against the possible dangers of Raudive's experiments being performed by nonprofessionals:

> If there is a spirit world full of the flotsam and jetsam of our military and mercantile civilization. If a door has been opened between this world and the next, then the masses armed with the cheap transistor sets and £5 Hong Kong tape recorders, will participate in this new Hydesville.[16]

Cass's statement is reminiscent of Theodor Adorno's rants against mass culture's frenzied infantilism, which are echoed in William S. Burroughs's satiric depiction of a pop band whose "baby talk" lyrics send their listeners into ecstatic infantile abandon.[17] In these examples, delirious response is not held up as something to emulate. An interesting parallel exists between the negative reading of the voice phenomenon as the pronouncements of base elemental beings and as the equally dangerous by-products of a (purposely) regressive aesthetic.

The imbecilic quality of the tape voices is not characteristic of the output of traditional mediumistic devices. Few examples of automatic writing, or even Ouija board pronouncements, are as garbled as the

phrases in Raudive's transcriptions. This kind of fractured language usage would be especially inappropriate if uttered by a human medium, whose portrayal of a specific persona is an important condition of their believability. In fact, mediums often tend to channel dead celebrities and famous historical figures, as if the same social hierarchies that exist in this world extend into the next. Compared to this clichéd fixation with the mass media star system, unified psychology, and history as grand narrative, the confused and ambiguous nature of Raudive's spirit voices comes off as positively contemporary—"Deleuzeian," if you will. It would be interesting to place together on stage trance channelers who have been instructed to act as conduits to such famous Parisian personalities as Serge Gainsbourg, Olivier Messiaen, Jim Morrison, and Le Petomane, with an equal number of ecstatic channelers who "speak in tongues." This contrast of unified psychological portrayal with meaningless glossolalia might be made to echo the shift in social meaning of white noise from deep meaning to surface meaning—from that which contains hidden mysteries (spirit voices), to that which is simply disposable popular product (techno music). How, or to what end, that might be accomplished I am not so sure of at the moment. But as an exercise in theatrical staging, it would be an interesting problem.

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However, I must say that part of my attraction to this material definitely had to do with the extramusical discourse that surrounded the recordings—the endless arguments as to the source of the voice effects. Whether they were explained as the voices of spirits of the dead, of demons, as projections of the unconscious, or secret CIA transmissions, the multitudinous poetry of discourse attendant to these tapes excited me. It functioned as their lyrics, and it seemed to offer promise of a music that escaped the compositional formalism of Minimalism. I was looking for a "music" that expressed more ideological concerns, such as the sound experiments done earlier in the century by the nonmusicians associated with the Futurist and Dada movements. My interests in these movements extended to the tape experiments described by William S. Burroughs in such writing as "the invisible generation."[4] Burroughs, like myself, was interested in the tape voice phenomenon and wrote an essay, "It Belongs to the Cucumbers," detailing his thoughts on the tape experiments of Raudive.[5] The transcriptions of Raudive's "voices" reminded Burroughs of schizophrenic speech or dream utterances, and he proposed that the voices might be "a backplay of recordings stored in the memory banks of the experimenters,"[6] instead of the voices of the dead. They were, perhaps, recordings of the unconscious.

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This populist attitude has radically affected the art world's traditional relationship to pop music. Museum shows of "sound art" in the past always reflected an avant-garde position; no pop music was to be found anywhere in sight.[25] Even though such an esteemed artist as Andy Warhol worked with a rock band in the sixties,[26] art institutions were unable to accept this particular aspect of his work as art. And this was at a time when there was already an immense amount of crossover between the worlds of the twentieth-century avant-garde and pop culture.[27] Even ten years later the so-called art bands (the art-school trained and media-savvy band Devo, for example), though obviously linked to the simultaneous "appropriation art" movement of the late-seventies and early-eighties, were still not accepted within the arena of art. "Appropriations" of sources as diverse as cigarette advertisements (Richard Prince) and the photographs of Walker Evans (Sherrie Levine) were acceptable to the art mainstream, while appropriations of rock band structures were not. This fact is definitely thought-provoking. Something about the social meaning of pop music made it impossible to co-opt for art-world usage at that time. (This is an interesting topic but one far too complex to address in this short essay. Suffice it to say—this is not the case now. The art world has changed. Now, pop music rules.)

I have been interested in these tape experiments since the mid-seventies, when I began to make noise music utilizing used magnetic tapes bought at secondhand shops and yard sales, as well my own recordings made in the spirit of "musique concrete." My interest in the so-called voice phenomenon was initially musical and related to similar interests in the minimalist music of composers like La Monte Young. Jürgenson's and Raudive's tapes attracted me as a form of a-compositional music. The implication was that the signal being inscribed on the tape in Raudive's experiments had nothing to do with the recording process; the voices were not audible in the room and thus must have found their way onto the tape in some manner other than through the microphone. If this is the case, "Why record at all?" is the obvious next question; why not simply amplify the natural "hiss" of blank magnetic audiotape?

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All of this is probably just a response to my general dislike of most contemporary electronic dance music—techno, for want of a better word. The primary discourses surrounding it strike me as false.[18] The so-called "radical anonymity"[19] of the music I read as indicative of a slacker ahistorical mind-set. The various musical appropriations utilized in

most techno tracks are generally unrecognizable, so their recontextualization is a moot point. Reuse is generally formal in nature, lacking the qualities of overt and purposeful misuse of quoted material found in such forms as psychedelic rock, hip-hop, and industrial music, all of which I much prefer to techno. The pseudo-Deleuzeian reading of techno as representative of a postmodern and "non-centered"[20] aesthetic, because of the music's schizophrenic multipart makeup, is denied by the presence of a constant *unifying* dance beat. Despite the utilization of the Cageian no-no, a steady beat, techno is decidedly Cageian music. It treats fracture in a *naturalistic* manner.[21] Techno mirrors the sped-up and fractured quality of contemporary electronic media and is analogous, in effect, to radio tuner dialing or television channel surfing. These could hardly be described as activities that induce delirium or cause one to question the order of experience. They are simply part of our daily media-dominated environment. Unlike the example of William S. Burroughs who, through a politically conscious remixing, makes us aware of the clichéd experiential structures through which we perceive the world, techno simply reiterates a naturalized technological environment. Techno also stinks of technological utopianism; a lot of the language attendant to it is reminiscent of Marshall McLuhan's writings of the sixties.[22] This was hard enough to swallow the first time around, in the romantic haze of the hippie milieu, but insufferable now.

Already in the seventies a band like Kraftwerk had an ironic attitude about their relationship to technology, and their image as a "pop" band. This is obvious if you compare Kraftwerk's strategies to that of one of their contemporaries, the neoromantic synthesizer band Tangerine Dream, who played up the seriousness of their music and downplayed their self-image—the exact reverse of Kraftwerk's approach. It's strange to see Kraftwerk's poker-faced proclamations about their love of machines quoted now as fact[23] and their obviously cornball electronic compositions held up as contemporary masterpieces. They are, but something's been lost in the translation when the irony of Kraftwerk's relationship

Top: Mannequin stand-ins for members of the techno band Kraftwerk, late 1970s.

Bottom: Kraftwerk. *Radio-aktivität* (EMI), 1975.

to modernist technological utopianism is presented as its opposite. In the depressed seventies, when technological utopianism could hardly be conceivable given the economic downslide that left many industrial cities veritable wastelands, Kraftwerk's evocation of Modernist aesthetics could only be read as a cruel joke.

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What is so amusing, relative to this technological infatuation, is that the main signifier for techno culture, the DJ, fetishizes an outmoded technology: the vinyl record album and turntables. This is understandable in hip-hop, which grew out of a poor street aesthetic of limited resources, but not in the techie world of electronica. Limiting oneself to material found on record albums, which hardly represents the contemporary information pool and which, by and large, is corporate pap, is ridiculous in this day and age.

Do these "spirit voice" recordings somehow maintain vestiges of their previous "metaphysical" meaning, even after they have been shifted into the formalist bracket of dance music? Is there something about them that, inherently, problematizes their position as such? Robin Rimbaud has spoken to me of his interest in the battery, in how it retains a memory of past usage even after it has been discharged. He goes on to postulate that buildings and spaces maintain a similar kind of residual record of the events that have transpired there. This belief is very much in line with spiritualist ideas. The haunted house, the poltergeist phenomenon, are explained as the result of the continuing presence of traumatized spirits or stored psychic energy associated with a given place. There is a stake in the historical that I have sympathy for in these mythologies. The unexplained phenomena of the present must somehow be linked to the past. In an ahistorical period, such as the one we live in now, I find this historical concern refreshing, even though—being a materialist—I assume that there are explanations other than the presence of ghosts to account for these phenomena.

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My interest in pairing intense aural experience with critical intent has something in common with the tape recording practices of William S. Burroughs as described in "the invisible generation." He sees experience as a kind of indoctrination by a preordained editing system. He proposes the systematic recording and "playback" of daily life as a critical practice. Ambient audio recordings are made, then counteredited: chopped up, slowed down, and so on, in order to expose what he

George Landow. ***Film in which there appear sprocket holes, edge lettering, dirt particles, etc.*****, 1966.**

describes as the "control machine"—a prerecorded "grey veil" that separates you from true experience. These recordings could be compared to the tape collages of John Cage that are produced through random game-like strategies: the *Williams Mix* of 1952, for example. But the focus in Cage's work is on pure aural experience; his works lack the critical intention at the root of Burroughs's efforts. When Cage chops together tapes recorded at different locations, the changes in background hiss are experienced as tonal shifts—as music. These recordings cease to function as documents of specific places. The abstract qualities of his work are foregrounded because he denies any investment in his source materials. Burroughs's focus on the political ramifications of the recording and editing process is much more compelling to me. For this reason, I felt that it was important to keep a record of the places that Scanner and I recorded, as well as describe why they were chosen. The reason for choosing these locations might be as simple as that they were picked out of a supernatural guidebook of Paris.[12] But even this information would reveal a historical aesthetic predilection, would point toward a particular construction of history that ascribes importance to certain figures and events.

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This is why I believe that the recordings that Scanner and I make around Paris should, initially, be understood as operating within a pop music framework. The pop framework is the sign of quality at the moment. We present the recordings, on one hand, as documents. They depict locales in Paris that relate to histories relevant to the spiritualist tradition that the tape voice phenomenon is part of, or sites associated with the avant-garde traditions that inform the aesthetics of contemporary DJ culture. On the other hand, we present these same sound recordings as the musical background for a contemporary style of social interaction—specifically the kind of dancing associated with techno music. In this case the installation is a reflection of the many sound environments that one finds in galleries and museums at the moment, ones that attempt to move the world of rave and DJ culture into the arena of the art institution. In line with this popular orientation, Scanner and I have also updated the technology generally associated with the tape voice phenomenon. We used contemporary digital recording equipment instead of the analog machines used in Raudive's day. This is obviously problematic, given the recordings' final usage as projective soundscapes, because digital recordings have far less hiss than analog recordings do. But, it will prevent the resulting sound from being read as a nostalgic comment on twentieth-century electronic music. Maintaining a popular and con-

temporary focus is also why I want to do a concert in which the tapes are mixed live, as they would be in a dance club, with mediums presented as front figures in the manner of pop singers. However, at the same time, I am interested in clearly conveying that this change of focus from a spiritualist to a pop bracket is the content of the work. It is important that the audience understand that these ambient soundtracks are historically rooted in extramusical concerns. This is why the visual component of the installation refers back to the original recording event of taping in "mysterious" and historical places. (Of course, this aspect of the recording process could also be understood through its exploitative usage in such popular genres as Goth or industrial music. For example, the band Nine Inch Nails has recorded songs in the house where the Manson family murdered actress Sharon Tate and others.) These contradictory readings obviously promote confusion, and part of my interest in embracing that potentiality is that it points toward "schizo-culture's" embrace of meaningless effect as the sign of popular appeal. For example, our video surveillance of various Parisian sites utilizes infrared heat-sensitive technology commonly used in the recording of "paranormal" phenomena. This produces a distorted image. In the context of our installation, this distortion would more than likely be perceived as simply effect, in the same way that visual effects are used toward no illustrative or symbolic purpose in music videos. I expect that reading. At this moment no other reading could be expected.

Returning to my proposal that the electronic medium promotes its own qualities, which come to be perceived as "aesthetic" relative to the experience of playback, I find it interesting to compare the experience of listening to one of Raudive's recordings with that of the reception of certain structuralist artworks. In some experimental films from the sixties, such as George Landow's film "Film in which there appear sprocket holes, edge lettering, dirt particles, etc." (1966), which has been printed so that the normally hidden edge of the film frame is revealed, the filmic experience is presented primarily as the relationship of the film-as-material to its mechanism of playback. The relationship of film to projector is what is being presented to the viewer in these films, not narrative content. I believe a similar intention is at work in Steve Reich's musical composition "Pendulum Music" (1968). This piece consists of a microphone swinging above an amplifier. As it swings over the speaker it produces a series of feedback squeals that lengthen in duration as the

swinging slows. This continues until the microphone hangs, stable, above the speaker producing a pure feedback tone. Here, the normally invisible relationship of microphone to amplifier—which are generally tools used only for the purpose of amplification—is made the content of the music, and feedback—which is usually considered unwanted distortion—is the carrier of that meaning. Since we are now in a period in which mystical interpretations of ambiguous effects is not the norm, machinic, technical concerns predominate. I believe the resurgence of interest in Raudive's tape experiments has more to do with contemporary musical tastes than in their spiritualist content. With the rise of electronica as a popular musical form, the history of electronic sound production is being scoured for source material. In this environment the tape hiss that is considered distortion in Raudive's recordings—as that which hides their true content: the voices—is now the object of primary interest. The hiss is the content, and the search for voices within it is now considered a kind of charmingly naive sublimatory excuse to revel in the pleasures of electronic sound. Because electronica is a pop music form, its focus is on effect not on theory. This is why Raudive's tapes may be resuscitated within its bracket; the serious musical concerns of twentieth-century electronic music would not tolerate the mystical pretensions of Raudive's recordings nor accept them as musical. These issues are not problematic in the world of pop music where effect is all. This cultural sea change is something that I am interested in.

IIIII

DJ art fares even worse when it is taken out of its proper milieu, the disco, and moved into the art gallery and museum. The only true politic that can be ascribed to electronic dance music is a Dionysian one: people are having fun when they dance to it, and that inspires in them some sense of "community." This effect is impossible in the gallery context. Presented there, this popular form simply becomes symbolic of populist aesthetics in general. This is what one sees in an exhibition like *Let's Entertain,*[24] which was mounted at the Walker Art Center in 2000 and traveled to the Pompidou. This show focused on artworks utilizing pop cultural motifs, but no differentiation was drawn between those works that had a critical intent and those that celebrated mass culture. The socialized surface qualities of the works was the main focus, and the underlying intent of the show seemed to be to propose that surface meaning, "phenomenological" meaning, is true meaning and that an artist's intent is besides the point. This attitude is very much in vogue at the moment, and I thoroughly disagree with it. I simply find it impossible to look at such overtly constructed images of the social through

a removed "phenomenological" gaze. What is the intention behind naturalizing the obviously constructed? I sense an unspoken politic of compliance at work here.

The acoustical properties of spaces can produce very strange effects. Vladimir Gavreau's famous "black noise" (sound capable of killing) infrasound experiments grew out of the fact that he discovered that his laboratory was vibrating in unison with a defective industrial ventilator in a building some distance from his. This was caused by extremely low frequency sound waves that literally induced pain in him.[11] It's obvious that an undetectable and mentally disturbing phenomenon such as this could be construed as paranormal. Even though I am not interested in mysticism per se, I am interested in the combination of audio effects, myth making, interpretation, and history that is a common attribute of spiritualist practice and literature. I find that the richness that results from this admixture is absent in much formal "abstract" electronic music. I am interested in examining spaces as generators of noise, with historical informational accompaniment as a kind of materialist add-on. I am interested in audio effects that are so intense that they demand to be taken in as pure sensory effect free of meaning, and then to refuse that demand by attaching sociopolitical concerns to them. I like it all the better if these concerns start to break down, fall into ambiguity and poeticization, in the presence of this noise. They are still there, in a latent form, and may bubble back into consciousness at any moment.

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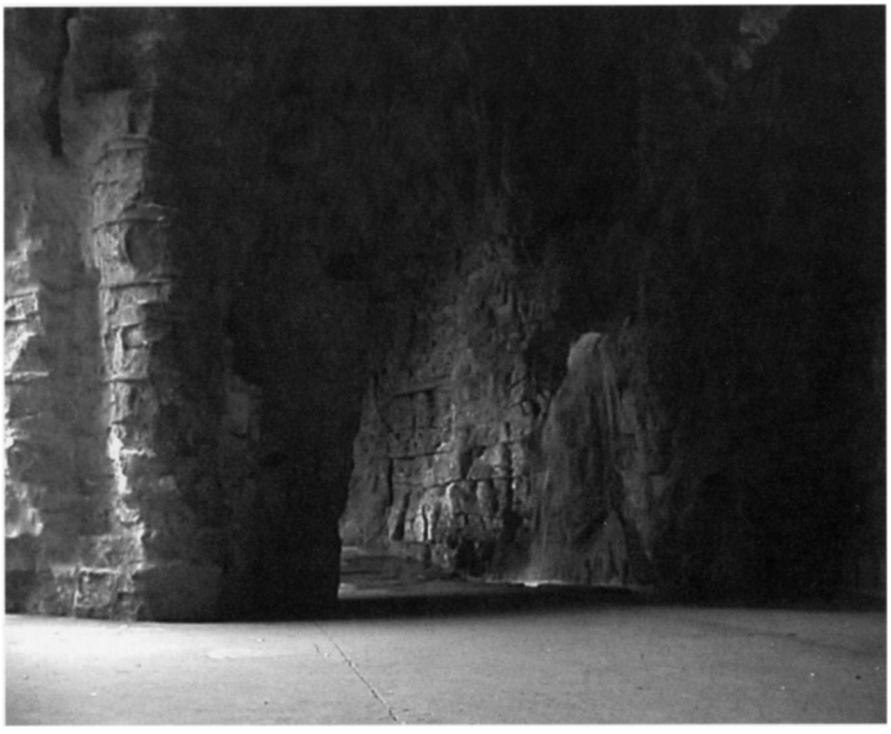
The following is a list of the places where video and sound recordings were made:

1. 7 rue du Faubourg-Montmarte. This is where the author Isidore Ducasse (1846–1870), also known as Lautréamont, died. Ducasse, poet and author of one novel, is often described as a precursor to the later Surrealist writers and is an early practitioner of appropriational writing strategies.

2. The Moulin-Rouge, where Joseph Pujol (1857–1945), also known as Le Petomane, performed in 1892. An immensely popular entertainer in his day, Pujol was able to perform musical and mimetic sound effects by farting.

3. The interior of the Grotte es cascade des Buttes-Chaumont in the Parc de Buttes-Chaumont. This constructed grotto is a famously "spooky" location in Paris.

4. 5 du boulevard Montmarte. The former shop of Jean Buguet, spirit photographer, operating in the 1870s.



Top: The house of Serge Gainsbourg (1928–1991). Photo: Mike Kelley.

Bottom: Grotte es cascade des Buttes-Chaumont, Parc de Buttes-Chaumont. Photo: Mike Kelley.

Top: The tomb of Allan Kardec (1804–1869). Photo: Mike Kelley.

Bottom: The house of Tristan Tzara (1896–1963). Photo: Mike Kelley.

5. 39 de la rue Condorcet. Former showplace of turn-of-the-century ectoplasm extruding medium Éva Carrière.

6. The apartment of Jim Morrison (1943–1971), American poet and singer. Morrison merged his interests in poetry and avant-garde stage practices in his band, the Doors.

7. The tomb of Allan Kardec (1804–1869), one of the leading exponents of spiritualism in his day.

8. The apartment of famed French singer Edith Piaf (1915–1963).

9. The home of Romanian poet Tristan Tzara (1896–1963). Tzara, one of the founders of the Dada movement, is credited with inventing the cut-up chance poem in the teens.

10. The gravesite of Charles Cros (1842–1888). Cros designed the phonograph, at least on paper, before Edison, experimented with new techniques in color photography, and tried to contact life on other planets.

11. The interior of Trinity Church, where composer Olivier Messiaen (1908–1992) served as organist from 1931 until the year of his death. Messiaen is famous for his musical translations of bird song; this seems especially pertinent given that Friedrich Jürgenson first discovered the tape voice phenomenon buried in his recordings of bird song.

12. The home of famed Parisian singer Serge Gainsbourg (1928–1991).

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This projective relationship of viewer or listener to artworks (and I am primarily interested in considering Raudive's tapes as a form of aesthetic practice rather than a scientific or spiritualist one) is common today. Using the popular example of sixties "psychedelic" music, projection may be found to operate on a number of levels. In certain songs by Jimi Hendrix not only are the lyrics obscure in meaning, they are buried in the mix and accompanied by other vocalizations such as whispers or groans. Instrumentation is ambiguous as well. The guitar is distorted to such a great degree that at times it is hard to separate it from tape or electronic effects. In this case, the distortionary practices are purposeful. Hendrix's songs mix ambiguity and sensory overload to produce disorientation. The listener is invited to project his or her own subjective readings upon such a work, or to simply give up trying to ascribe meaning to it at all in favor of a more "disembodied" relationship to the music. Relative to this psychedelic effect, Dr. John C. Lilly describes the effect of LSD on the brain as the introduction of white noise, which he describes as "randomly varying energy containing no signals of itself,"[9] into the perceptual experience. He states, "The increase in white noise energy allows quick and random access to memory and lowers the threshold to unconscious memories (expansion of conscious-

ness)."[10] This overload of previously filtered-out material is often understood by the subject as emanating from outside of his or her own consciousness and is ascribed a supernatural origin—as being the voice of God or spirits, for example. Sensory deprivation has been shown to produce similar effects. The use of repetition and drones in musical forms such as minimal, trance, or ambient music often induces a "dreamy" state that invites projection.

These sites were documented on video, and ambient sound was recorded using a digital minidisc recorder. However, to push the self-reflexive machinic qualities I discussed earlier, soon after recording began the lens cap was put on the video camera, and the microphone was turned off on the audio recorder. The machines, then, in essence, recorded themselves and not the sites they were situated in. In post-production, to accentuate the white noise element that I postulate is so important to the tape voice phenomenon, the sound playback levels of the blank minidiscs were radically raised so that whatever natural hiss is present on the raw stock was accentuated. Also, in accordance with the tape voice researcher's observation that the "spirit" voices are generally faster than normal, the recordings were slowed down by 50 percent. As I said before, these altered tapes are then presented as if they are live feeds from the sites they document. This attempt at "naturalizing" the electronic effects applied to them should be easily recognizable as façade. Sound anomalies found in the discs are treated analogously to the "voices" found in Raudive-style recordings. They are sonically foregrounded through editing and looping. In this way they are made to function as "DJ mixes" and are used as a dance music soundtrack for another video documenting people dancing at a disco. This tape is also fictitiously presented as a live feed. The fact that the dancer's movements bear little relationship to the soundtrack should be enough to reveal the constructed nature of this "document."

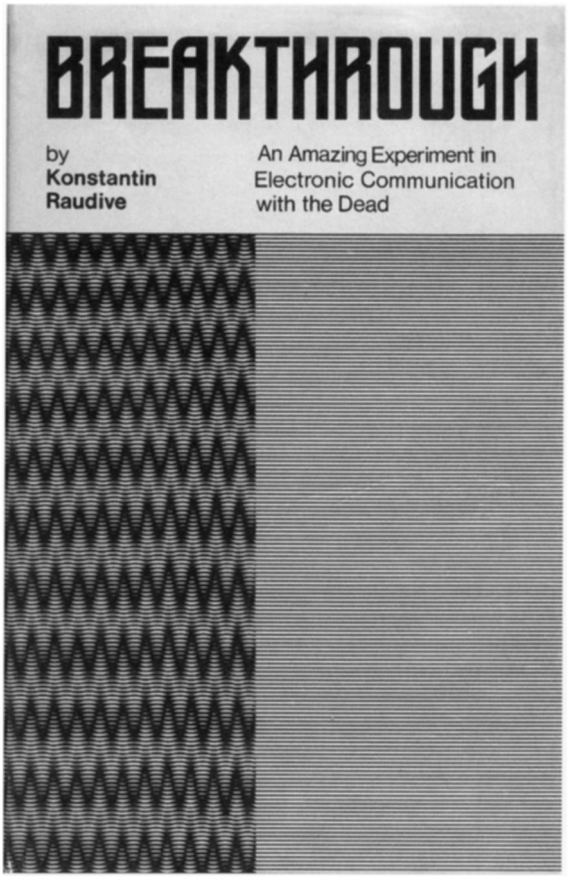
Lyall Watson, the author of *Supernature,* states that a tape recording always seems to pick up more background noise than there is in a real-life situation.[13] This is true. We are programmed in such a way as to screen out as much extraneous information as possible; otherwise we would not be able to deal with the amount of external stimuli that constantly bombards us. A tape recorder does much the same thing that putting a seashell, or a simple tube, up to our ear does—it makes us aware of the amount of white noise that continuously surrounds us. Much of the technology of spiritualism is designed to introduce this white noise, as John Lilly describes it, into our perceptual range. Many early spiritualist electronic devices took as their starting point the medium's speaking trumpet, listening tube, or cabinet. These were all simple tools meant to amplify the paranormal voices supposedly channeled through

Konstantin Raudive, *Breakthrough: An Amazing Experiment in Electronic Communication with the Dead* (New York: Taplinger, 1971).

the medium. Used as enclosures for electronic amplification or recording, these objects produced an effect similar to that of the seashell—they accentuated the white noise. With this project I want to play with the historical, political, and aesthetic discussions that color the reception of this noise. In focusing upon the movement of this noise from the bracket of supernatural research into that of pop music Scanner and I, hopefully, find something interesting to say about the historical roots of, and contemporary politics of, present-day electronica.

I used tapes made in the Raudive manner in performances such as *Spirit Voices* (1978). I returned again to them later, in the nineties, for a project done for the *Do It* exhibition organized by curator Hans-Ulrich Obrist. *Do It* is a traveling exhibition in which artist's works are reconstructed in various institutions by local volunteers via an instruction manual. My project consists of instructions for the production of a Raudive-style spirit voice tape that is to be played back in a disco environment. Very few people have followed the instructions precisely, but then that's probably the point of Obrist's curatorial exercise. I now have quite a large collection of these tapes. In 1998 I did a performance at the Santa Monica Museum of Art where I mixed these tapes live, somewhat in the manner of a DJ. The present collaboration with Scanner is an outgrowth of this work.

A visit to a nineteenth-century medium was very much a theatrical experience. One would watch the medium to detect shifts in body language or voice that could be attributed to the controlling spirit. One would be on the lookout for trickery relative to the appearance of ghostly apparitions or disembodied voices. This is similar to watching a play or magic show, where truthfulness of portrayal and naturalness of stage effect are always under scrutiny. The relationship of the listener to a tape by Raudive is more akin to listening to a record album. Unlike the façade of theater, the audio recording is presumed to have some kind of one-to-one relationship to an original. This is true even in the case of recordings consisting of multichannel compilations of various tracks where the original sources are hard to decipher. The audiophile is aware that there is an immense difference between the experience of a live concert and a recording of it, and the manner in which this difference is attended to is how the quality of a recording is determined. This is very much an aesthetic interpretation. The same attention, relative to quality, is applied to the playback mechanism itself. A worn-out record needle, a punctured speaker, inflects the recording with its own stamp, and this distortion of source is considered a negative quality. In listening to a tape by Raudive, one is hyperconscious of the fact that the distortion of the recording process is the primary experience. This distortion is much louder than the "voices" buried within it. This is so



much the case that one is compelled to question whether there are voices there at all; they might only be projective audio hallucinations induced in the listener by the general uninflected nature of the white noise. The detection of voices in the tape hiss could be considered analogous to the recognition of imagery in Rorschach blots.

IIIII

This project refers overtly to the tape experiments conducted by Friedrich Jürgenson, a Swedish filmmaker and artist, and, somewhat later, by Dr. Constantin Raudive, a Latvian psychologist living in Germany.[1] These experiments grew out of the discovery, in the late-fifties, of "voices" buried in field recordings Jürgenson made of bird song. As these experiments progressed, microphone recording was given up in favor of recording from radio receivers set to nonbroadcast areas of white noise. Another researcher, Attila von Szalay, has made similar tapes with no signal entering the recorder at all. He simply held the end of a wire jacked into the recorder so that his body acted as a "microphone."[2] (Since the early-forties, von Szalay, an American, has been trying to record the mysterious voices that he hears, first on a record cutter, then on an early wire recorder.) These recordings sound, basically, like amplified white noise, and must be listened to very carefully to discover the "voices" buried within them. The voices on these tapes are said to consist of snippets of phrases, in various languages, and at different speeds. Each of the researchers concluded that the voices were those of the dead. The tape voice phenomenon came to wide public attention with the publication of Raudive's book *Breakthrough* in 1971.[3]

IIIII

The project that Robin Rimbaud (aka Scanner) and I created for the *Sonic Process* exhibition consists of a series of ambient audio and video recordings made at various sites in Paris. These recordings were presented, on video monitors, at the Centre Georges Pompidou and falsely described as live video feeds from the external locations. On a projection screen, another "live feed" from a popular disco shows people dancing to "mixes" of the ambient sounds we collected. We also intend to present

a live musical concert in which these same tapes are used. The pose of presenting the tapes as live video feeds is meant to accentuate the "reality" of the information being presented, which exists outside of the confines of the museum, and thus to insinuate that the museum setting is an improper one for the experience of our artwork.

IIIII

The experiments of Jürgenson and Raudive are part of a long spiritualist history of attempts at communication with the dead. What differentiates the likes of Jürgenson and Raudive from their nineteenth-century spiritualist predecessors is that the human "medium," the person who acts as conduit for the voice of the departed spirit, has been replaced with an electronic device. As soon as electronic communication devices were invented, the same technical principles were applied to spirit communication. Plans exist, attributed to Thomas Edison, for a "telephone" to communicate with the dead. He is known to have been working on such a device in the twenties.[7] This is only one of many examples of spiritualist electronic devices produced in the twentieth century. Obviously, one important reason for this shift to an electronic medium was the attempt to eradicate the subjective presence of the human intermediate. An unforeseen by-product of this shift to an electronic "medium" was the introduction of a new aesthetic element derived from the electronic gear itself. I would argue that this electronic spiritualist tradition is one

Friedrich Jürgenson in his home studio, 1976.

of the roots of late-Modernist electronic music. The following quotation from *From Beyond,* an H.P. Lovecraft horror story from 1920, already exhibits an appreciation for the musicality of electronic equipment, one that, by virtue of the machine's supernatural purpose, colors the sound with the mysterious aura of the exotic: *". . . below the crowning cluster of glass bulbs. The usual sputtering began, turned to a whine, and terminated in a drone so soft as to suggest a return to silence."*[8] This portrayal of the sounds emitted by a machine designed for extrasensorial contact with unknown dimensions could easily function as a description of much current ambient music.

Notes

14. The following quotation by Deleuze sounds as if it was written specifically to elucidate the aesthetics of much contemporary sampler-based music: "To desire consists of this: to make cuts, to let certain contrary flows run, to take samplings of the flows, to cut the chains that are wedded to the flows. This whole system of the unconscious or of desire which lets flow, which cuts, which lets move, this system of the unconscious, contrary to what traditional psychoanalysis believes, means nothing. There is no meaning, no interpretation to be given, no significance." "Capitalism and Schizophrenia: Gilles Deleuze and Félix Guattari Interviewed by Vittorio Marchetti," in Félix Guattari, *Chaosophy* (1972; reprint, New York: Semiotext(e), 1995), 76.

15. Clark Smith and Ann Strader, "Friedrich Jurgenson and the Voices of the Dead," in *Strange Fate,* ed. Frank Edwards (New York: Paperback Library, Inc., 1963), 11.

16. R.A. Cass, quoted in Bander, 82–83.

17. "The Buful Peoples came out with a horrible number called 'Here Me Is.' Seems the infant son of Buful Bradly would hide himself behind a sofa or under a desk and pop out saying 'Here me is' and that gave him the idea. The stage is an empty room and then the Buful Peoples start popping out in baby faces saying 'Here Me Is' and shooting the audience with projection guns. Thousands of fans went mad, put on diapers and rushed through the streets shitting and pissing themselves as they screamed out:

"'HERE ME IS' 'HERE ME IS' 'HERE ME IS.'

"The Board of Health issued a powerfully worded warning relative to 'the dangers to health mental moral and physical posed by the hideous practice of baby-talking or still worse baby-singing adults.'"

William S. Burroughs, in Daniel Odier, *The Job: Interviews with William S. Burroughs* (1968; reprint, New York: Penguin Books, 1974), 215.

4. William S. Burroughs, "the invisible generation" (1966), included as an appendix to *The Ticket That Exploded* (New York: Grove Press, 1967), 205–217.

5. William S. Burroughs, "It Belongs to the Cucumbers," in *The Adding Machine: Selected Essays* (New York: Grove Press, 1985), 52–59.

6. Burroughs, "It Belongs to the Cucumbers," 59.

25. For example, exhibitions such as *Sound* at the Los Angeles Institute of Contemporary Art and P.S.1, Institute for Art and Urban Resources, Long Island City, New York, in 1979; and *Soundings* at the Neuberger Museum at the State University of New York at Purchase in 1981.

26. Warhol produced the first Velvet Underground album, did the cover artwork for their first two albums, and included them in his multimedia show The Exploding Plastic Inevitable.

27. See Simon Frith and Howard Horne, *Art into Pop* (London: Routledge, 1987), for a history of the influence of the art school and avant-garde aesthetics on postwar pop music.

18. My two primary sources for the history and discourses surrounding "techno" are Ulf Poschardt, *DJ Culture,* trans. Shaun Whiteside (London: Quartet Books Limited, 1998); and Simon Reynolds, *Generation Ecstasy* (London: Routledge, 1999).

19. Reynolds, 4.

20. Poschardt, 283.

21. John Cage's naturalistic sentiments are exhibited in the following quotes: "'One must be disinterested, accept that a sound is a sound and a man is a man, give up illusions about ideas of order, expressions of sentiment, and all the rest of our inherited

claptrap.' 'The highest purpose is to have no purpose at all. This puts one in accord with nature, in her manner of operation.'" John Cage quoted in Marshall McLuhan and Quentin Fiore, *The Medium Is the Massage: An Inventory of Effects* (New York: Bantam Books Inc., 1967) 119.

22. The following quote from a book chronicling the San Francisco hippie scene contains language that is remarkably contemporary: "While it is rare for a hippie to acknowledge that his way of life has any theoretical sources, at least one name, that of Marshall McLuhan, crops up frequently. It is from McLuhan that the Haight-Ashbury gets its cybernetic rhetoric, its concept of industrial pastoralism, its admiration of tribal life, its sense of human behavior as explained by game theory, its loyalty to art forms that require 'total involvement.' From McLuhan, too, the Haight-Ashbury gets its justification for the hope that, come the cybernetic revolution, all men will be artists." Leonard Wolf, ed., *Voices from the Love Generation* (Boston: Little, Brown and Company, 1968), xxix.

23. Poschardt, 369.

12. In fact, most of the sites that were recorded for this project were chosen from two tourist guide books of Paris: Francois Caradec and Jean-Robert Masson, *Guide de Paris Mystérieux* (Paris: Editions Tchou, 1985); and Judi Culbertson and Tom Randall, *Permanent Parisians: An Illustrated, Biographical Guide to the Cemeteries of Paris* (London: Robson Books, 1991).

24. Karen Jacobson, ed., *Let's Entertain,* exh. cat. (Minneapolis: Walker Art Center, 2000).

11. Vladimir Gavreau, "Infrasound," *Science Journal* 4, no. 1 (January 1968); reprinted in *Amok Journal: Sensurround Edition* (Los Angeles, Amok, 1995), 379–389.

9. John C. Lilly, *Programming and Metaprogramming in the Human Biocomputer* (New York: The Julian Press, Inc., 1972), 76.

10. Lilly, 76.

13. Lyall Watson, *Supernature: A Natural History of the Supernatural* (New York: Bantam, 1974), 69.

1. For information on the history of the tape voice phenomenon see: Peter Bander, *Voices from the Tapes: Recordings from the Other World* (New York: Drake Publishers Inc., 1973); Suzy Smith, *Voices of the Dead?* (New York: Signet, 1977); and D. Scott Rogo and Raymond Bayliss, *Phone Calls from the Dead* (Englewood Cliffs: Prentice-Hall, Inc., 1979).

2. Smith, 50.

3. Konstantin Raudive, *Breakthrough: An Amazing Experiment in Electronic Communication with the Dead* (New York: Taplinger Publishing Company, 1971).

7. Rogo and Bayliss, 141–142.

8. H.P. Lovecraft, "From Beyond," in *The Lurking Fear and Other Stories* (1920; reprint, New York: Ballantine Books, 1975), 61.

Who Will Give Answer to the Call of My Voice? Sound in the Work of Tony Oursler

TONY CONRAD

I am not a talking head.
—Tony Oursler's image as devil, projected on a horned-head maquette; *Machine*, 2000.

Pictures are more civil than noise. Only exceptionally is the clangor of clashing audio tracks less than hellish in museum efforts to exhibit multiple works with sound. Whether the pieces are films,[1] recorded performances, sound works, or video installations, their simultaneous audio emanations compete and quarrel among one another in the resonant "white cube" in ways that pictures never would. The smooth clear rectilinear walls and hardwood floors of the modern museum gallery are the antithesis of a recording studio, with its soundproofing and wall-to-wall carpeting.

When you step into a Tony Oursler show, though, the overlapping sound tracks somehow garble together, cohering as they weave an infernal sonic tapestry.

Here sighs and cries and wails coiled and recoiled
on the starless air, spilling my soul to tears.
A confusion of tongues and monstrous accents toiled

In pain and anger. Voices hoarse and shrill
and sounds of blows, all intermingled, raised
tumult and pandemonium that still

whirls on the air forever dirty with it
as if a whirlwind sucked at sand.
—Dante, *Inferno,* III: 22–29

Almost any of Tony Oursler's shows has confronted the visitor with a cacophony of voice tracks, mingling among a mélange of projected images, each voicing its own complaints, introspective remarks, or

Grey Room 11, Spring 2003, pp. 44–57.

Tony Oursler.
***Influence Machine*, 2000.**

censorious social commentary. These are not unified individual works in the modernist sense; each is an art piece that has made a break for it, has *escaped the Frame,* but then—hobbled by the tether of video (its cables the implied—even if not visible—framing edges of the video image)—it fails, importantly, to stand free, and instead is pinned in place, projected flat, a crushed soul, skewered in the din. This is hellavision; it is the Nietzschean sentence of eternal return visited upon sculptural form. Each of Oursler's surrogate portraits (their existential horror would not permit them to be subsumed to actual portraiture—although his video has become 90 percent "talking heads"—an iconic bust format they share with both classic portraiture and television news) is captured, transfixed in the headlights of time, given a speech and a face, and doomed to endlessly recycle their recorded interval of a few seconds or minutes. "Fixed in slime they speak their piece, end it, and start again" (Dante, *Inferno,* VII:119–120).

Even Oursler's early single-channel video works tended toward this chthonic acoustic miasma. "I used three or four cheap cassette players playing back at the same time to multi-track," he explains. The frequent appearance of an organ in these soundtracks tugs at other hellish associations—with vampire films, the mass, the camp orientalism of Korla Pandit, and, as Oursler himself says, "the creepy tradition of soap opera music."[2]

Frankie Teardrop (Alan Suicide and Mike Robinson, 1979), an electrifying super-8 "punk" film, stuns the eye with a churning super-8 montage, while the film's tremulous energy is transfused through a breathlessly histrionic vocal by Alan Vega. Oursler

> was inspired by Alan Vega, whose music with Martin Rev in Suicide freed me to do a lot of my soundtrack work. I loved making the music. . . . I fell in love with the organ. It's so basic, all you can do is go up or down on the emotional scale—Suicide was essentially organ and voice. I had seen them live in NYC and it had great impact—they were amazing.[3]

For Oursler, music, then as in his most recent work, has served largely to condition the viewer's emotional ambiance toward a receptivity to the messages of his voices, once the viewer's eye is bedazzled by his images.

Oursler's embranglement with music may also be traced through a succession of collaborations with performers and composers—with Sonic Youth, Arto Lindsay, Glenn Branca, and Tony Conrad.[4] There is Oursler's own music too. In 1997 he and Mike Kelley collaborated on the remixing, rerecording, and reissuing of songs

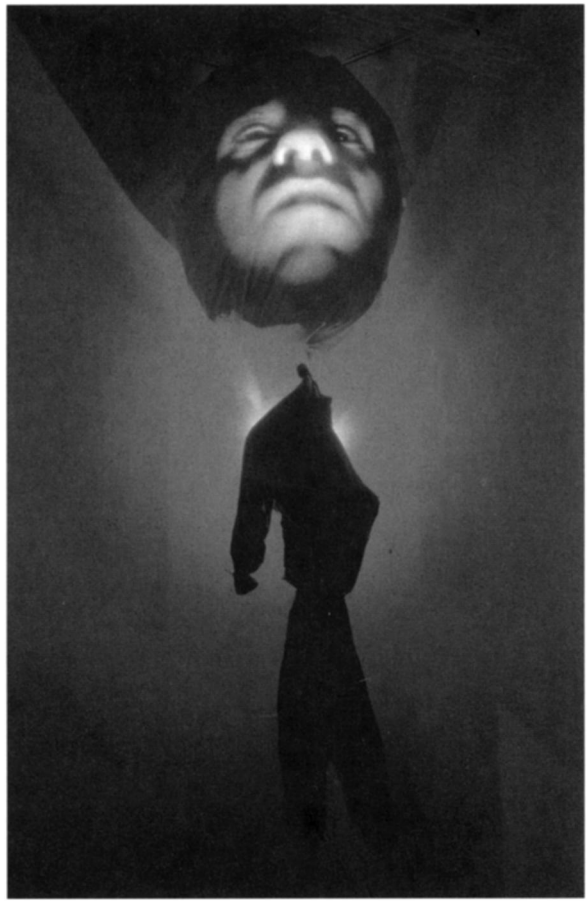
recorded by their band, The Poetics, two decades earlier. And *Fantastic Prayers,* his most recent "single channel" work (a CD-ROM, not a videotape), is a cooperative product of Oursler's longtime collaboration with author/performance artist Constance DeJong and musician Steven Vitiello.

It would be futile to attempt a full inventory of *Fantastic Prayers* here; it is one of the richest and most variegated artist productions ever realized on CD-ROM. In *Fantastic Prayers* the deliciously inventive transitions between images and scenes (and inspired transitions *are* the kernel of CD-ROM quality) traverse a denser-than-expected skein of virtual sites, sustaining an almost novelistic interest. In fact, *Fantastic Prayers* even incorporates a complete DeJong text, aside from her vocal and image contributions. DeJong is also primarily responsible for an astonishing phoneme-organ that is perhaps the crowning sonic jewel in the *Fantastic Prayers* audio cache.

With *Fantastic Prayers* Oursler has returned to a more coloristic use of sound, adding animal sounds and musical elements, as in the graveyard subsequences. These midcareer sonic brushstrokes are far more controlled than the impetuous and abandoned playing of The Poetics—the art school band he founded with Kelley, John Miller, and others in the 1970s—and far more precise than the emotional musical gestures of his single-channel video work.

> Then Saul said to his servants, "Find a woman who is a necromancer for me to go and consult her." His servants replied, "There is a necromancer at Endor."
>
> And so Saul, disguising himself and changing his clothes, set out accompanied by two men; their visit to the woman took place at night. "Disclose the future to me," he said, "by means of a ghost. . . ." The woman answered, "Look, you know what Saul has done, how he has swept the necromancers and wizards out of the country; why are you setting a trap for my life, then, to have me killed?"
>
> The king said, "Do not be afraid! What do you see?" The woman answered Saul, "I see a ghost rising up from the earth."
>
> —*I Samuel* 28:7–9, 13 *(The Jerusalem Bible)*

In this manner King Saul was given foreknowledge of his and his sons' deaths on the following day at the hands of the Philistine army. Saul's death is reported in



Opposite: Tony Oursler.
***Grand Mal*, 1981.**

Right: Tony Oursler.
***F/X Plotter*, 1992.**

two versions. In one, wounded, he falls upon his own sword (*I Samuel* 31:4); in another he is hard pressed in battle and asks a nearby soldier to dispatch him (*II Samuel* 1:6, 9–10). The story thus invites further interrogation—but of whom? Who tells the first version we do not know. Why the teller of the second version (the nearby soldier) should have expected any advantage from speaking out at all is unclear because in the next moment after he relates his version to David, David has him slain. Infected by this preliminary inquiry, we might wonder further who tells the story of the witch of Endor? The account carefully wraps the whole episode in layered invisibilities: Saul is disguised, is accompanied by only two men, and goes under cover of darkness. The "ghost," which speaks with the voice of Samuel, is never seen, except through the woman's vision.

Saul's tale is, of course, told by the winners after his death; that is, it is viewed from the perspective of David, who was Saul's deadly adversary and whose confederacy with the Philistines is camouflaged by his reported absence from the battle. Perhaps the story of the visit to the necromancer is intended to show that Saul's death was preordained. As a secular figure, the witch removes Yahweh from the potentially impolitic position of having foreseen or even perhaps implemented the king's undoing by the Philistines. The soldier's execution displays David's concern to cast Saul's death as *evil*.

The curious undercurrent running through this story is a strong sympathy for the necromancer. Outlawed by the bad King Saul, she is nevertheless "good"; she offers him help and hospitality. Moreover, the storyteller is surprisingly complacent in evoking this plainly unorthodox image: a ghost, or a ghostly voice, emanates from the earth at the soothsayer's feet—a ghost who engages Saul in conversation. We can conclude only that this was a familiar and recognizable scene for the story's audience; it must have had enough credibility and sympathy that it would arouse no antipathy toward the teller among Yahweh's believers. Certainly, Saul had "swept the necromancers and wizards out of the country," but the subtext here is that this banishment was not popular. A consultation such as Saul's was a commonplace among the ancient Hebrews.

Valentine Vox describes how, in contacting the dead, the necromancer, or "Baalat-Obh" in Hebrew, "would stoop down and feign a hollow voice that seemed to come from the lower joints or the ground."[5] The ancient ventriloquists sometimes used a resonant cavity in the ground, or a vapor vent, to misdirect attention and confuse the location of the voice. There was never a "dummy," or ventriloquist's puppet. Most often, bent over and speaking in a muffled tone, the ventriloquist would easily convince the listener that a voice was coming from a "spirit" trapped in the ventriloquist's belly.[6] This early form of ventriloquism,

in which a muted voice seemed to emanate from a spirit in the ground or the belly, continued to be associated with supernatural divination until the Enlightenment. "Ventriloquism," in fact, means "belly-speaking."

During the Enlightenment, extraordinary experience—which had always been received as divine or magical—was subjected to a cataclysmic transformation, becoming either "natural," in the case of scientific surprises, or simply impossible. The Impossible, of course, could only be received as entertainment, no matter how convincing and paradoxical it might be. The amusement value of a magic show, for example, was exactly as great as the impossibility of its acts. Suddenly ventriloquism became a mere entertainment. The "marriage between puppetry and ventriloquism" took place in 1750, when the Austrian Baron von Mengen began to perform accompanied by a small puppet with a moving mouth.[7] Before long ventriloquism was only one more tactic in the magician's bag of tricks. Erik Barnouw has described how the cinema, too, as it first emerged at the turn of the twentieth century, was often simply a magician's accessory. In the end it turned out, to the distress of magicians, that the cinema was, of course, stronger than magic.

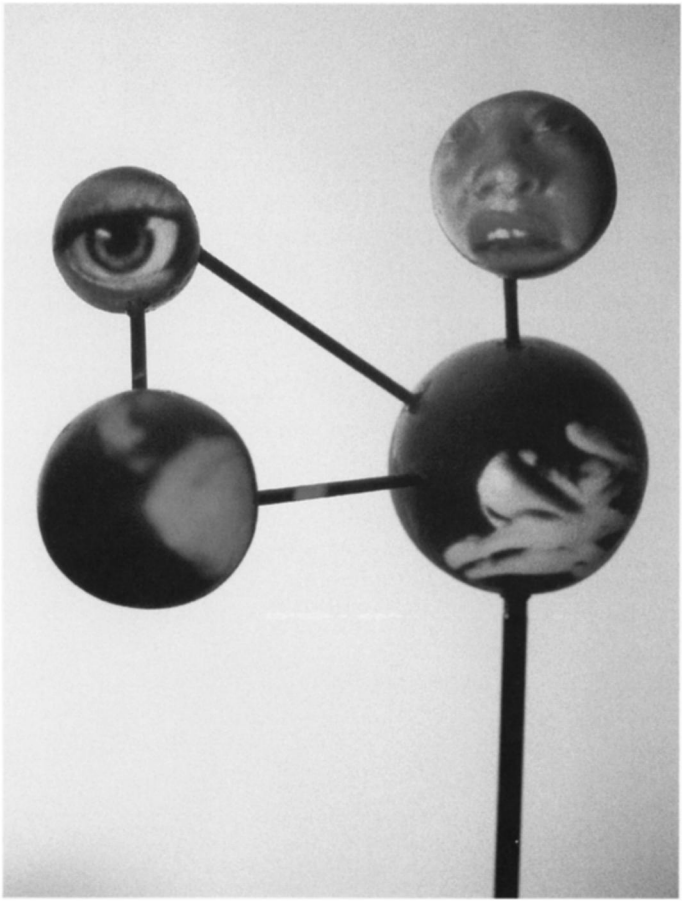
> The magician found he had been helping to destroy his own profession. Many magicians survived as magicians, in some cases by stressing the ancient skills of prestidigitation, rather than equipment trickery. Others merged into the world of film and took part in a new evolution of the extraordinary.[8]

The epistemological wonder of the Impossible lingered on during the early-twentieth century but unhurriedly expired as new technologies of illusion irrevocably domesticated the imagery of the Impossible, first using stop action and double exposures, then optical effects and models, and finally by using computer animation and morphing. Today any child in front of a TV is completely jaded; in the twenty-first century there is no "impossible." Not only can inanimate objects speak, but any genera of "magical" phenomena may occur normally, *inside the television frame*. The loss of wonder that accompanies this jadedness certainly does not serve the interests of the entertainment industry. Instead, movies and TV try in vain to blur the epistemological boundary between the imaginary and the Impossible by maintaining some (even paradoxical) semblance of the "real" inside the moving-image frame.

Ambrose, Jerry Nevill, and Tony Oursler, 1959.

"Reality" on television has always been problematic, not least because television both uses long uninterrupted "takes" (which mimic the durability of the world around us) and habitually chops up the scene into close-ups (which do not).[9] But if a region can be found and set carefully apart within the cinema and television for "realities" such as news, sports, and documentaries, then the "magic" of fictional effects could be preserved to some degree in the rest. Should the boundary of the "real" within the frame collapse, the wonder of the illusionary impossible becomes lost. This is why twentieth-century television ventriloquists like Edgar Bergen (and his puppet, Charlie McCarthy) were able to achieve a remarkable early popularity, but one that lasted only until viewers realized that television technology encompasses techniques of illusion that utterly overwhelm the parlor tricks of a ventriloquist or stage magician.

It is true that impossible spectacles are still constructed for us outside of the moving-image frame (e.g., Disney World, the circus, communion). But as the induced epistemology of the television experience increasingly saturates us, Impossibility itself seems less and less paradoxical; at the same time, the unremitting spectacle of scientific technological display has jaded us in our relation to impossibilities within the "real." Tony Oursler's technology is neither mysteriously "scientific" nor hidden. He makes the devices of his illusion visible, and uses a technology that is immediately graspable. But by moving the boundary of illusion beyond the frame, he has constructed a twenty-first-century epistemological paradox. Within this paradox there are separate rules governing the throwing of the voice and the throwing of the image, deriving in part from the sense in which the image is always virtually (even if not actually) framed, while the voice is not.



As the early Greeks recognized, the eye somehow reaches out to an image; the voice, on the other hand, though it "goes with" the image, in effect fills and reverberates the surrounding space, penetrating and occupying every air molecule. The visual image appears to "keep its distance" from us, while its voice sneaks right inside our ears. If this were not so, at least in some measure, how could voices

issuing from visually separate images overlap and merge into babble? And why should a voice coming from a loudspeaker appear to be spoken by a face that mouths the words, though the image be some distance from the speaker? The telephone, radio, and phonograph, taken together, configure a modern "ghost" space in which the disembodied voice has been psychologically "re-embodied," in which the discrepancy between the location of a voice and the location of its speaker has somehow been canceled. From where did this ability to uncouple sight from sound come? Hearing and vision are both used by all primate species as orientation systems, but the two sensoria evolved at different times and in different circumstances. Environmental mapping by sound came first; it let mammals function in the dark, something reptiles could not do. Binocular space perception evolved much later, when primates reclaimed the daylight by taking to the trees, using binocular depth perception. So it is not surprising that these two maps can work somewhat independently.

More needs to be said about the powerful role accorded the voice in Oursler's work, in large part because the assignment of voices to ghosts has been, as we have seen, a mark of Western cultural practices since antiquity. Voicecasting—throwing the voice, like a net, over and around an image—is a trademark device of the "puppetry" that has pervaded Oursler's career. Oursler's "puppets" are so visually diverse, often even screwy, insubstantial, or unexpectedly synecdochic, that they draw us into an unexpected dramatic register, one in which the voice itself is the dominant figure. Oursler's voices don't arise from his effigies' mouths; sometimes they are barely even close by. Occasionally we might find a tiny voice rewarding us when we inspect a small recess (in one case it is the inside of an atomic nucleus in the molecular model for heroin), inhabited by a little monitor/identity. But more often Oursler *throws* the voice at his mannequins.

> I regard truth as a divine ventriloquist: I care not from whose mouth the sounds are supposed to proceed, if only the words are audible and intelligible.
> —Coleridge, *Biographia Literaria,* ix

Even though ventriloquism is called "throwing the voice," it is hard to imagine how, absent the use of acoustical lenses, it would "really" be possible to "throw" the voice in the same sense that one "projects" (literally, "throws forward") an image. When a (so-called "real") image is focused on a screen or other object, it and its component shapes and colors are sited, fixed, nailed down, to a degree and in a way that is very different from the way the spatial elements of an acoustic "image" are localized. Oursler's voices are "thrown" upon their associated images; yet by remaining separately and differently localized from the image,

Tony Oursler.
***Molecule Mélies*, 1997.**

each voice, paradoxically, "frames" its images, in the sense that by paying attention to the separation of the voice we, in effect, demarcate a certain boundary of the image's "reality." That is, the physical system of video projection, while releasing the image from its frame on the TV screen into space, simultaneously demands a new suspension of disbelief on the part of the viewer. Yet in the perceived absence of a video frame, the viewer's sense of the Impossible is resurrected, allegorically recovered: the frame is a life boundary. Outside the frame is reality; inside is hell. Isn't the *frame* the *grave* of portraiture (engraving), the place where the likeness is frozen as dead, yet endures in its semblance of life?

Oursler commonly makes the situation of his figures distressed, painful to witness. Our knee-jerk psychological and epistemological investment in the character then flows freely into the stream of paradoxes in which the figure is immersed as a projection. The diegetic crises of the figures, which are both psychic and physical, awaken our narrative reflexes and draw us into the circle of the Impossible, which admits us only when we break the frame of illusion and sustain the "real"-ism that we concede to the image of the Impossible.[10]

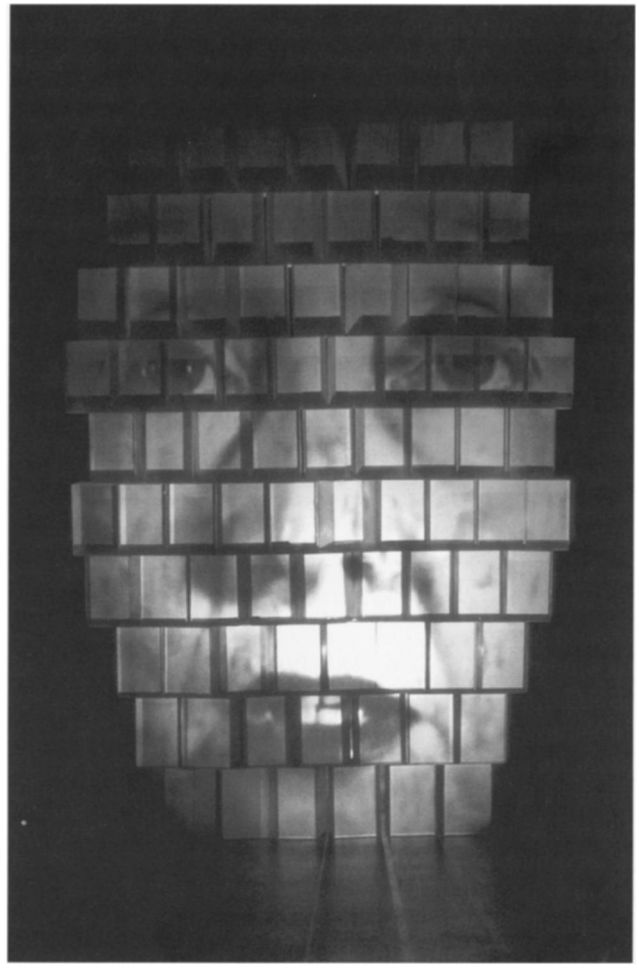
Leslie Fiedler has provided a name for this conformation of impossibility and truth. "Only the true Freak," he writes, "challenges the conventional boundaries between male and female, sexed and sexless, animal and human, large and small, between self and other, and consequently between reality and illusion, experience and fantasy, fact and myth."[11] As Oursler's "talking head" videos are projected onto bent or articulated surfaces, his subjects melt into caricatures, freaks. They become pinheads; their eyes swell to Walter Keene–like proportions (sixties kitsch artist Keene "had a special place for me and all Americans"[12]). As though to mock their sterile blindness, some puppets have become only gargantuan eyeballs, silently challenging: "Look! Don't you believe Eye can see you too?"

Tony Oursler's mouths without faces, like his heads without bodies,

do have voices; they speak grotesquely from the surfaces of disembodied hearts *(Fantastic Prayers),* a mannequin torso, wherever they are projected. These dismemberments are sometimes paralleled by a fragmentation of the spoken message or even a breakdown of phonemic structures. Oursler's term for this loss of consciousness, this ecstatic sexual surrender to the larger constitutive forces of the creator (himself), is "orgasmic babble." In its interest he deploys the core artistic devices of the formalist toolkit—fragmentation, repetition, and reframing—as mechanisms for sexual inundation and subjugation. Any viewer whose trapped and broken spirit echoes the wails in these works is a sexual victim, too, a soul whose lost unity-of-being betokens the release within of an unmanageable sexuality that will ooze up between every shard of the shattered self.

And hell, the burbling conflux of voices, is a system of "orgasmic babble." Oursler subjects himself to this multiplication and division of spirit and image, notably in *Untitled MPD* (1998), an almost Naim June Paik–like grid/wall of heads with simultaneous projected images of the artist, all speaking at once; an extreme icon of identity fragmentation. The monumental woman's head of *Digital Blue* (1997) (performed by Constance DeJong) is projected on a raster of Plexiglas bricks that must be more than five cubits tall. DeJong's voice has been manipulated, distorted; she also reads a cut-up script. The fractured voice, which spans both tonal (illocutionary) and semantic registers, is fragmented alternately by the atomization of the text and by a distortion of the acoustic flow; the interplay of these two registers as they come apart internally and interactively also plays against the fracturing of the image as it falls across the tiers of bricks. "I am, I am not," DeJong repeats over and over, a litany ambiguously expressing either her epistemological distance from the viewer or a soulless *jouissance*.

There is an up-front and persistent dualism behind much of the soundflow in Oursler's work, which is in its foundations more Cartesian than Freudian. Ghosts, skulls, fetuses: images of death in life, life in death. "Stay out of my mind!" his figure adjures. And



Opposite, left: Tony Oursler. ***Troubler*, 1997.**

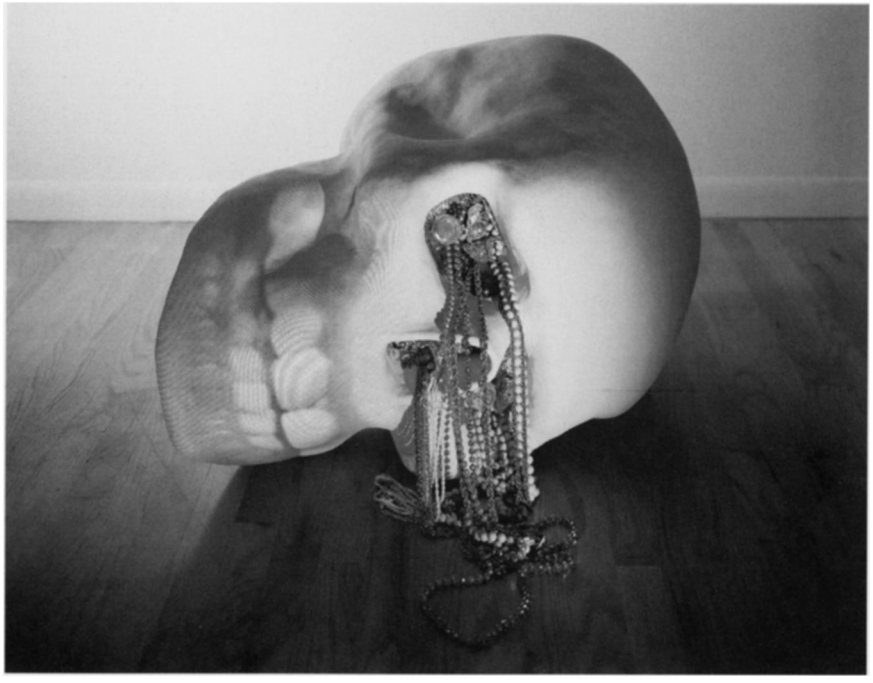
Opposite, right: Tony Oursler. ***(No) Skin?*, 1996.**

Right: Tony Oursler. ***Digital Blue*, 1997.**

not only does Oursler conjure up (but, ultimately, only to problematize) the Cartesian dualism of mind (voice) versus body (image) by using ventriloquism; he goes further, beyond the ontological dualism of normalcy, to *Possession* (1998). The voice of possession is an inverted ventriloquism; its messages are received or channeled, not thrown. Oursler segregates possession from ventriloquism by marking *Possession* with glossolalia, the speaking of the other through one's own body, in unknown and mixed tongues, and by a more extreme form which is not even word salad but a *caponata* of disjunctive phonemes, as if the received "message" were extracted and scrambled from unknown languages.

Though Oursler's pieces are rife with the iconography of death—skulls, drugs, and devils—these are almost always mere set dressing for his avatars, the speaking figures, whose voices animate the geometry of their damnation. While both the reflected light from the projected images and the sounds of the voices beam out into the space around, his sculptural figures remain confined, crushed, bound, drowned, entrapped, imprisoned, paralyzed, inert. Sometimes the figure is being crushed under a piece of furniture, or it is hanged on the wall; it may be sealed in a tank or box or locked into a suffocating tableau. Sometimes tiny images are frozen in place, or they wander impotently across a screen surface that is more junk pile than intaglio—the whitewashed labyrinth no longer visually a screen but more of a small stage set, a planet, a trap. And always the projected image itself ensnares the figure in a recording. The figural overdetermination of capture and restraint is incessant.

Always, in art, the processes of the work are reflected in those of the viewer. And so the trap that appears to have captured Oursler's figure is set to spring on the viewer. A voice with a mask (this is the etymology of "person") becomes a powerful and even irresistible attractor to the

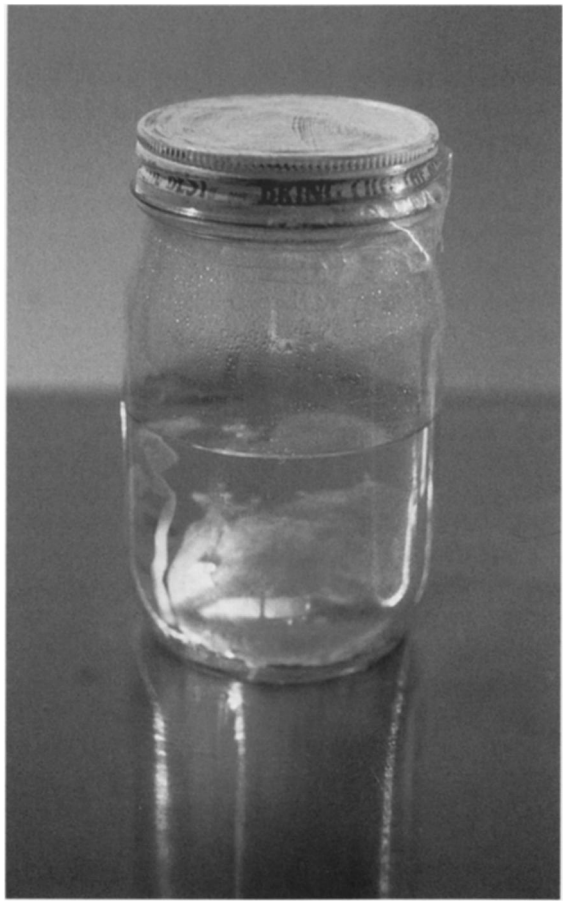


narrative investment of the viewer. The voice doesn't even need to come *from* the image; it merely needs to be associated with it.

Voices and images signal impotently for help, for resistance, for submission, or for reflection. In the *Inferno* visages visually melt and merge—"two heads had already blurred and blended; now two new semblances appeared and faded, one face where neither face began nor ended" (XXV: 67–69)—but here it is only the sound, in its cumulativity, overlapping and merging, becoming a sonic blur, and dismantling its own signifying capacity, which finally captures our desire for clarity and twists the viewer into position. Come closer, the babble compels, to hear and understand what each of us is saying, to segregate the single voice amid the crowd, to drink more deeply of the visible plight before you.

Shade, shadow: these terms—each calling up the dark side of an object (but then, add also *materialization,* the object itself)—each of these is a synonym for *ghost.* Even *image* itself, almost a stand-in for *artwork,* was in archaic usage a *phantasm.* Early in his career, when his images sparkled on the surface of a vacuum tube sprayed internally with electrons, Oursler was preoccupied with the fetus as an image. His procession to the opposite pole of life follows the ejaculation of his images into the body of our surrounding world, the "little death" of video projection.

Voices have accompanied irruptions of magic throughout history, taking the form of speaking statues, oracles, speaking stones, voices from the earth, and so on. But just before the modern period the Western churches closed ranks in opposing ventriloquism and necromancy, acting in ways that we now understand in terms of politics and sexuality. Then the Enlightenment so rebuked the Impossible that it could only appear, before a nervous but ever fascinated populace, as "entertainment," safely ensconced within the magic circle of the theatrical proscenium. Finally, in the twentieth century, ventriloquism succumbed to imprisonment on the screen. Now decades have passed; and animation has become so ubiquitous and sophisticated that it is hard even to imagine that a ventriloquist could attract a TV rating. Although puppets with voices still captivate children on TV every Saturday morning, adults are inured to this spectacle.



Opposite: Tony Oursler.
***Hole*, 1998.**

Right: Tony Oursler.
***Organ Play*, 1994.**

But now, at the point when historically we might be led to expect the death of the Impossible and the final extirpation of an outmoded magic from our surroundings, Tony Oursler announces magic's repenetration, by television, into the phenomenal world. As magic, Oursler's figures do not simply perform technological services for reanimating the world, as do talking elevators or greeting cards, but instead they reoccupy the sites of personal and spiritual authority that magical forces seemed to have abandoned. Outfitted with the pseudopod of video projection, Tony Oursler's television has pushed outside the confines of the tube to reclaim and reanimate a place for wonder within the real.

Notes

1. As, for instance, in the MOCA-based exhibition, *Hall of Mirrors: Art and Film since 1945* (1996).

2. Mike Kelley. "An Endless Script: A Conversation with Tony Oursler," in Deborah Rothschild, *Tony Oursler Introjection: Mid-career Survey, 1976–1999,* Williams College Museum of Art (1999), 43.

3. Kelley, "An Endless Script," 43.

4. Sonic Youth contributed to *Sessesion* (1995); Arto Lindsay produced a guitar solo for the installation *Why I Love Guitar, Why I Love Drums* (1997); Glenn Branca collaborated on the audio installation and CD *Empty Blue,* which was presented at Expo 2000 in Hannover as an aspect of *In Between;* and Tony Conrad produced a soundtrack and CD for *The Influence Machine,* an outdoor public installation shown in New York and London (2000), CD-Release (2003).

5. Valentine Vox, *I Can See Your Lips Moving: The History and Art of Ventriloquism* (Tadworth, Surrey: Kaye & Ward, Ltd., 1981), 14.

6. Or perhaps the belly of the ventriloquist's client; scholars disagree in interpreting the ambiguous ancient Greek texts. See Plato, *Sophist* 252c; Plutarch, *Moralia* 414e; and Aristophanes, *Wasps* 1017–1020, esp. MacDowell's commentary on 1019 in Aristophanes, *Wasps,* ed. Douglas M. MacDowell (Oxford: Clarendon Press, 1971), see Vox, 49.

7. Vox, 49.

8. Erik Barnouw, *The Magician and the Cinema* (Oxford: Oxford University Press, 1981), 9.

9. In both respects Tony Oursler's installation video is a return to "traditional" television—while everything else in his deployment of the technology is endlessly novel.

10. Similar epistemological crisscrossings are endemic to all pictures and to the "pictural text," as Derrida calls it: "Every relation to a pictural text implies this double movement doubly interlaced to itself. It is a kind of *fort/da*. . . . Heidegger's whole discourse (here and elsewhere) is supported by [*s'entretient du*; also, chats about] the *fort/da*, and here of a picture which marks or sets marching [*fait marcher*, takes for a ride] the *fort/da* in painting . . . the whole path of thought, for Heidegger, leads back, by a dis-tancing, to a *Da* (thus the *Da* of *Sein*) which is not merely close, but whose proximity lets the distance of the *fort* play within it." [Jacques Derrida, "Restitutions of the Truth in Pointing [pointure]," in *The Truth in Painting,* trans. Geoff Bennington and Ian McLeod (Chicago: University of Chicago Press, 1987), 357. Emphasis in original.]

11. Leslie Fiedler, *Freaks: Myths and Images of the Secret Self* (New York: Simon and Schuster, 1978), 24.

12. Kelley, "An Endless Script," 43.

Tony Oursler.
***Insomnia*, 1996.**

Knowing the Enemy: The Epistemology of Secret Intelligence

EVA HORN
TRANSLATED BY SARA OGGER

Until September 11, 2001, the work of military and political intelligence services was considered good only insofar as neither their successes nor failures ever made it to the public light. After 9/11 the intelligence services have become popular as never before. True, after the terror attacks they were charged with unresponsiveness and failure to predict or prevent, but today they appear to be the only force available to fight the diffuse and impenetrable network of fundamentalist terror. Thus the social and the political status of the intelligence services—especially in America, but not just there—has fundamentally changed. If you asked Americans two years ago what the U.S. government was spending its yearly $30 billion intelligence services budget on, you would have heard that it was for ensuring national security, for informing foreign policy decisions, for fighting organized crime, and for military operations—all problems that Americans long considered likelier to occur abroad than on their own land and soil. National security was considered something that needed to be defended in Iraq and that was equated, in a problematic turn of rhetoric, with global security. Today the attitude is much simpler: "The intelligence services are supposed to protect us." That they were unable to do so has become a political issue in America. While the immediate reaction to the events of 9/11 was a mixed bag of sharp criticisms and calls for expanded powers for the intelligence services, more recently there has begun a process of reconstructing concrete omissions and structural weaknesses. Throughout, hardly any consideration has been given to the kind of knowledge actually involved in the "product" of the intelligence services: how this knowledge is gathered, produced, processed, and transmitted. Intelligence—as a very specific, complex, and in a certain sense paradoxical kind of knowledge—cannot simply be "improved" or produced "faster" or in "greater amounts." Technical intelligence (TECHINT), such as signals interception, satellite imagery, measurement analysis, and decryption technology, partially obviating the risky business of spying by secret agents (HUMINT), has allowed us to forget that the knowledge sought by the secret services is a high-risk,

Grey Room 11, Spring 2003, pp. 58–85.

The Enigma in use by members of the German Army General Staff, 1941.

ephemeral sort of knowledge. Secret intelligence is a knowledge that is not only won under dangerous conditions but also has its own inherent dangers and paradoxes. What the intelligence services collect and process is not yet, nor will it ever be, reducible to the technical problems of signal analysis, decryption, and image resolution, nor for that matter to mathematical risk assessment or the game plans of trained experts. Intelligence will always be irreducibly linked to danger and deception, from which it has its origin and without which it is not to be obtained. Despite all its administrative rationalization and technical objectivization, the gathering and handling of secret information will always be somehow dirty, fraught with betrayal, suspicion, and lies. It is caught in an epistemic delirium that cannot be stopped by any state or technological achievement. The logic of this knowledge must be described in terms other than those of an epistemology of science: it is the epistemology of enmity.

Intelligence

Encyclopedic entries under the heading "intelligence" describe a three-part epistemic operation: seizing, gathering, and analysis. "Evaluated information" is what the *Encyclopedia Britannica* calls intelligence, which "can be given to leaders to help them in their decision making."[1] What is depicted here with reassuring clarity as the nexus between knowledge and decision is divided elsewhere into a trinity of the process, product, and institution of intelligence: "a kind of knowledge; the type of organization which produces the knowledge; the activity pursued by the intelligence organization."[2] At first glance there is, structurally speaking, very little to distinguish intelligence from knowledge or scientific research per se. Intelligence theorists themselves have thus couched the specific problems of their knowledge production and processing in the terms of recent theories of science, basing themselves on Popper, Feyerabend, and Lakatos.[3] The questions that arise here are those found in a philosophy seminar: Is there such a thing as a "paradigm shift" in the world of signals intelligence? Does one work from individual data toward a theory and prognosis, or is it rather the case that basic theoretical assumptions are what determine the way data is collected and evaluated? This academic approach defines intelligence as a discipline in the general field of empirical social sciences, but also as an epistemological sibling of experimental research. It appears to be the prototype of "applied" science. It adheres to clearly delineated modes of questioning, contains quantifiable data, can be disproved through observation, and produces verifiable theories. With one small but decisive difference: where the hard sciences have "nature" as their object, intelligence has "the enemy." What is assumed is that this object behaves exactly as nature does for the natural sciences, that is, it behaves in a predictable manner.[4]

Here, too, one encounters the methodological difficulty that the act of observation can cause changes in the object observed. But to consider intelligence as parallel to science implies that "the enemy" can, in principle, be transformed into positive raw data (troop strength, weapons, gross national product, deployment plans, images, transcripts of intercepted communications). These data, viewed together with assumptions on the state of political conflict ("Does Syria want to go to war with Israel?"), can be transformed into scenarios for assessing the pros and cons of a given political or military measure. Computer simulations of hot spots of conflict around the world produce idealized prognoses that serve the "decision makers" as the basis of their determinations for war and peace, covert actions, or diplomatic cosmetics. In the scenarios of game and decision theory, which have provided the methodology for processing the gathered data in the last few decades, politics becomes the continuation of mathematics through other means. College graduates' rationalistic optimism that their studies in philosophy or political sciences had equipped them with sufficient methodological skills to "evaluate data" as intelligence officers gradually gave way to their entirely mistaking their business as involving the same type of "knowledge" they had encountered at the university.

This understanding of military and political intelligence as the product of quasi-scientific research and bureaucratic institutions is, however, a rather late development in the history of a kind of knowledge characterized above all by its innate linkage to power and war. Whoever becomes the object of this knowledge is by definition the enemy. "Intelligence is about 'them,' not 'us.'"[5] Intelligence is the endeavor of knowing the enemy, identifying internal and external, visible and invisible, latent or manifest enemies, suspicious groups, and unstable alliances. Even though nowadays this knowledge is produced and circulated within huge administrations, even though it is thought to function like a science, it has its origins in neither the spirit of administration nor of academia, but first of all in warfare. One of the earliest and pithiest theories of warfare's relation to intelligence, Sun Tzu's *The Art of War*, sketches out a war that ideally can be won without battle, simply through the application of knowledge. This tract, which is thought to have been written between 400 and 320 B.C. under the Emperor of Wu and which was first translated into French by the Jesuit priest Joseph Amiot in the eighteenth century, is not just the first known textbook on strategy and tactics, but, most important, a theory of intelligence, its uses, and its sources. "All warfare is based on deception" is Sun Tzu's basic axiom.[6] Around it he unfolds a thoroughgoing doctrine of intrigue and traps for use against the enemy. The methods of this warfare are as pragmatic as they are perfidious; they consist in ambushes, deceptive maneuvers, the

advantage of surprise, secrecy and camouflage, distraction, and disinformation. "Therefore, when capable, feign incapacity: when active, inactivity. When near, make it appear that you are far away; when far away, that you are near. Offer the enemy a bait to lure him; feign disorder, and strike him."[7] These are the weapons to be used long before it comes to open battle—whether to prepare for it or to prevent it. Sun Tzu recommends luring the enemy out by camping in an open field, allowing a surrounded troop obvious routes of escape so that they do not fight to the end, and leaving mysterious items around the camp so that the enemy is held up while investigating them. The active misleading of the enemy is only one side of it—the other is intelligence as the gathering of dependable information on the enemy. Sun Tzu calls it "foreknowledge" and teaches his reader how to read the signs: to judge the fatigue of enemy soldiers by their cursing, the speed of moving troops by the shape and height of their dust clouds, the nervousness of the opponent by the noise he makes at night. As a logical consequence of this emphasis on "foreknowledge," this amazing text ends with a comprehensive typology of spies and the ways to use them.[8] He names five different categories of secret agents: "native agents," or local traitors knowledgeable of land and people; "inside agents," or turncoat officials on the enemy side who speak freely of state secrets; "doubled agents," or captured enemy spies who can reveal what the enemy knows; "expendable agents," or carriers of fabricated information who offer the enemy false data; "living agents," or informers who infiltrate the enemy's cities and encampments and spy on them. This typology of spies goes far beyond a modern definition of espionage, as it includes not only information retrieval but also disinformation. Sun Tzu's agents need not be "compatriots"; they need not make it out alive; it is not necessary that they be upstanding or, for that matter, reliable. What they must accomplish is a subtle politics of information, the purpose of which is to provide the basis of any tactical decision: "Secret operations are essential in war; upon them the army relies to make its every move."[9] Whereas in European warfare espionage and betrayal are seen as a necessary evil and spies as unheroic and infamous creatures who are "necessary, but not respected" (Frederick the Great) in the efficient waging of war, Sun Tzu associates them with the secret to bloodless victory: "For to win one hundred victories in one hundred battles is not the acme of skill. To subdue the enemy without fighting is the acme of skill."[10] The ideal of Sun Tzu's elegant and highly economical warcraft is a minimum of violence, wear and tear, and time—everything else, such as great battles, lengthy encampments, and complicated weaponry are barbarism. The most important instrument in this art of war is knowledge, and Sun Tzu's perhaps deepest insight is that he recognizes it as a two-edged sword: intelligence is always

deception as well as knowledge, it is the struggle for the advantage in what is known, a game of covering and uncovering, information and disinformation. Knowledge is a weapon if it can be used against the enemy to gain a strategic advantage. The important criterion here is not truth versus falsehood, but rather tactical effectiveness. It is always biased, whether in the hands of allies or of enemies, and thus inherently bound to the side that uses it. The knowledge produced by intelligence is never "objective" but always strategic.

War Knowledge versus State Knowledge

Intelligence stems not from the kind of power typified by state sovereignty but from what Gilles Deleuze and Félix Guattari have described as the "war machine," a multiple, deterritorializing movement as opposed to the hierarchical and stratifying principles of the "state apparatus." War is speed, secrecy, violence, cunning—while the state is understood as "stratum," fixedness and rootedness in one place, representation, the end of *bellum omnium contra omnes:* the law. The war machine, according to Deleuze and Guattari, is, as a matter of principle, external to the state—even though elements of the war machine may be integrated into the State apparatus in the form of its army, police, and intelligence services. The war machine consists of *"furor"* instead of "moderation." The warrior, write Deleuze and Guattari,

> is like a pure and immeasurable multiplicity, the pack, an irruption of the ephemeral and the power of metamorphosis. He unties the bond just as he betrays the pact. He brings a *furor* to bear against sovereignty, a celerity against gravity, secrecy against the public, a power [puissance] against sovereignty, a machine against the apparatus.[11]

The war machine is Deleuze and Guattari's name for an unleashed and unlimitable enmity, a dynamic of all that is warlike: its capacity for metamorphosis and camouflage, for speed and a strategic relationship to space. Secrecy and the betrayal of secrets, disinformation and the violation of treaties, propaganda and conspiracy are elements of this war machine, which cannot be subsumed under the principles of national sovereignty. It is the modern partisan, the clandestine "irregular fighter" that could be called the paradigmatic embodiment of the Deleuzian war machine.[12] It is no coincidence that one of the most successful partisan leaders in history was Mao Zedong, a careful reader of Sun Tzu. The partisan is a type of warrior whose most important and efficient, indeed sometimes sole weapons are his mobility, his knowledge, and his cover. He is everywhere at once, he hides in the guise of a civilian, he fights alone or in very small units. His only chance against superior numbers

and technology is his knowledge in and of space—the native's privileged familiarity with his territory—and his tactics of surprise and deception. The partisan (and its metamorphoses as terrorist, secret agent, saboteur, spy) is the Deleuzian "nomad" of modern warfare.

Where national sovereignty is demonstrated through representation and discipline, treaties and territorial demarcations, in the war machine it is the twofold principle of secrecy and speed that holds sway. In a way, in the logic of the war machine, secrecy and speed are two sides of the same thing. Intelligence as a type of military knowledge, besides its dual structure as information and disinformation, always carries a time indicator; its strategic relevance has an expiration date. The key is to know where the enemy is *before* the battle, to predict the future, to have this knowledge on the spot and unbeknownst to the enemy. The secrets of intelligence, which gave its institutions the title of "secret intelligence," are in their essence dated (good until when?) and directed (secret to whom?). "If the secrets of war are always written in the air, only high-speed transmission allows their importance to be usefully deciphered,"[13] according to Paul Virilio. This double limitation on universal validity fundamentally divides the knowledge of intelligence from the knowledge of the sciences. However uncannily similar intelligence may seem to academic research, it is anything but universally valid, verifiable, and openly accessible, nor is it durable.

Intelligence might have its origins in the deception and hardship of war, far from the administrative and academic form it sometimes tends to take today. However, like the whole of the war machine, it has been integrated into the state as an instrument of governance as much as of warfare. Just as the state creates armed forces in order to channel the nomadic dynamic of war into a standing army, the *furor* of the warrior is transformed into strict discipline, and his territory-grasping speed into territorial rule. In this way, the state also assimilates military intelligence.[14] The principle of traversing and exploring lands now becomes that of seizing, appropriating, and controlling them. Intelligence as the gathering of strategically useful information about the enemy now becomes a "fourth dimension of war" in addition to the famous "communication, control, command," and has its own functional department within the army and the state. Today this double function of intelligence as an instrument of governance as well as of warfare is mirrored in the administrative division between domestic and foreign intelligence services. The smallest unit of production of military intelligence is the paradoxical pairing of military leader and scout/spy, the highest command and the lowest irregular elements of warfare: bribed local inhabitants, traitors, prisoners, secret informers.[15] Armies have long been careful to erect as few barriers as possible between the two sides of this pair, between discovery and

decision. To the extent that the elements of the war machine are integrated into the house of the state, secrecy and deception become part and parcel of sovereignty: as the modern forms of *arcana imperii*. In this crucible the intelligence services are born, administrations of the fleeting, double-edged knowledge produced by intelligence. In the Renaissance this first took the form of a special caste—originally private and operating at its own expense—of agents, informers, decryption specialists, and spies who delivered reports to a complicated hierarchy of officials and advisers. Intelligence became a kind of state knowledge, administrated and specialized, as useful for the efficient waging of war as to the smooth internal functioning of the state. In this way it was separated not only from the business of war and became part of diplomacy, but it also became differentiated into a variety of instances, each responsible for a different function: data gathering, evaluation, analysis, reporting to decision makers. Beginning in Venice and Elizabethan England, the modern states began to pay for informants who, in the guise of travelers, envoys, or negotiators collected information, intercepted correspondence, deciphered codes, and practiced secret diplomacy in the shadow of the throne.

As state knowledge, intelligence is an element of a hierarchical apparatus, running through a phalanx of secretaries and specialists charged with gathering information, processing, formulating questions and goals, and finally turning it into evaluations and advice for the policy makers. With increased professionalization, departments became differentiated along lines of method and application. This specialization aims at a total overview that would encompass the whole field of politics—of internal and external enemies, in war or in peace. Thus intelligence becomes a secret addendum to a body of knowledge that the state—not at all secretly—collects: statistics and indices, dossiers and reports on which modern governance is based. Intelligence becomes, as Alain Dewerpe puts it, a *"science totale."*[16] As governmental knowledge, it collects data on the population, social risk groups, home opposition movements; as military-strategic information, it departs from the preparation for battle toward preparation or prevention of war, clarifies the military's attack power, economic endurance, international networks of influence, or possible geopolitical outcomes. Its focus can be infinitely large or immeasurably small: the political effectiveness of marginal groups, the family ties of figures in government, the structure of private networks, the behavior of the press. As domestic intelligence, the work of secret services has sometimes tended to be a total surveillance of the entire population, or more precisely, of the "enemies to society" hidden within the homeland. Specifically with this attention to the "enemy within," there is a tendency for the intelligence services to become what Michel Foucault describes as the specific structure of "police power" as

it arose at the end of the eighteenth century: an "apparatus that must be coextensive with the entire social body and not only by the extreme limits that it embraces, but by the minuteness of the details it is concerned with. Police power must bear 'over everything' . . . it is the dust of events, actions, behaviour, opinions—'everything that happens.'"[17] More recently, national and international forms of criminality (e.g., drug smuggling and organized crime), terrorism, or white-collar crime have fallen into the category of "national security." With its bureaucratization as state knowledge, intelligence became more than a form of knowledge, more than even a branch of science: it became an encyclopedic archive of many different disciplines and types of knowledge—a metascience, ranging from political science and conflict psychology to nuclear physics. It increasingly relies on public sources (television, newspapers, the Internet, statistical yearbooks, maps, professional publications, etc.) and summarizes this knowledge in regularly published reference works (such as the *National Intelligence Survey* of the sixties or the *World Fact Book*). Intelligence is like a classified encyclopedia of the world, knowledge about everything, but not for everyone.

The Epistemology of Secrecy

What differentiates the kind of intelligence produced by experts and specialists and stored in their offices and filing cabinets from the knowledge cultivated at universities is its epistemology of secrecy. This creates peculiar effects of hypnosis or paranoia. The secrecy and the closed nature of the intelligence services precludes any competition, and thus correction, of the gained results. Whereas the crowning achievement of scholarly research is publication, which opens the possibility for contradiction, intelligence is blind. It is created, circulated, and eventually discarded in an imaginary space that quite possibly is nothing more than one's own interior but which is experienced as "external." Especially in the hysteria of Cold War, intelligence had the strong tendency to create a fathomless world whose secrets (covert movement of troops, new miracle weapons, the identity of a mole, etc.) could never be anything but exactly what was being looked for. This might not be the intent, but it is the effect of "classification"; as nobody else is equipped to share the knowledge thus classified, nobody will correct an aberrant hypothesis, nobody will contribute contradicting information. This is why, in their lucidity as well as their blindness, the intelligence services tend to be very stubborn about their hypotheses and very reluctant about dialogue and exchange. The questions after 9/11 regarding the failures of the intelligence services have made this inability to communicate clearer than ever. It has been shown that not only the exchange of information within the institutions faced countless hurdles, but even communication

between the CIA, FBI, and various other American services such as the NSA functioned anything but smoothly. As recently as summer 2002 an FBI field officer pointed out the fact that her communiqués about a member of Al Qaeda were buried on the desks of her own colleagues. Even the European intelligence agencies, which have a long tradition of experience concerning Islamic terror groups, were very cautious about the sharing of data with each other and were scarcely taken seriously by their American counterparts. The problem, though, is not merely a sociological or organizational one that can be tabled after a few announcements and restructurings. For the problem lies in the very epistemological structure of intelligence and its type of knowledge that cannot simply be subjected to free competition the way a scientific hypothesis can and must be. This is why it will inevitably remain, at least to a certain extent, caught up in its own blindness.

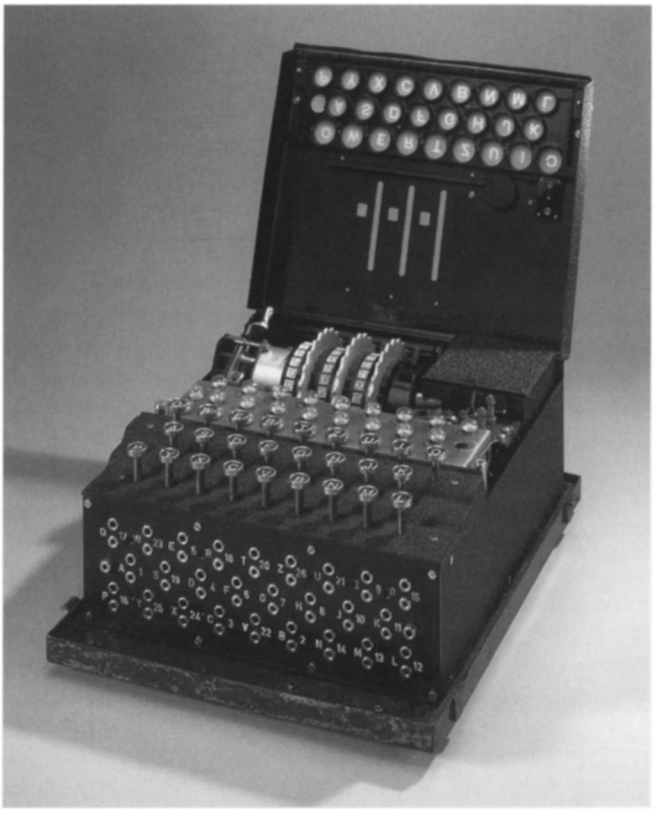
In addition to this self-imposed blindness there is also a certain hypnotizing effect created by the object observed. This object behaves like Descartes's *genius malignus,* "an evil genius, supremely powerful and clever, who has directed his entire effort at deceiving me."[18] The worldly incarnation of this evil genius is the enemy. In enmity, the likelihood, or rather, the certainty of being deceived is given a priori. Herein lies the intrinsic difficulty of working with an object whose appearance is never more than intentionally misleading. The double-edged character of intelligence as knowledge consisting of information and disinformation turns out to create a dynamic of bottomless mistrust and violence-prone paranoia. The logic of this mistrust—which is always the logic of one's own will to deceive—can be seen in the mirror-image thought processes of the two sides regarding a defector in a typical spy novel of the Cold War, Robert Littell's *The Defection of A.J. Lewinter.* A Soviet expert argues as follows:

> . . . the Americans are probably signaling us—but to what purpose? Everything depends, in the end, on what the Americans *want* us to believe. If they want us to believe he is real, he must be a fake. If they want us to believe he is a fake, he must be real. Here is where it gets complicated. I will raise the possibility that the Americans are signaling us that Lewinter is real in the expectation that we will discover they are signaling us that he is real and conclude he is a fraud. Ergo, they want us to believe he is a fraud. Ergo, he must be real. Do you follow me?[19]

The aberrant dialectic of these thoughts is not just the product of the Marxist schooling of the Soviets. It is the consequence of a logic of suspicion shared by both sides, a very simple one: everything is exactly not as it seems. The enemy deceives me in that he is reckoning with a certain

behavior on my part—and I in turn reckon with this. As it ironically turns out in Littell's scenario, the result of all this mistrust is precisely the belief in the first appearance. The double contingency of this mutual spying cannot be alleviated by putting oneself in the position of the other but is rather thrown precisely into an endless dynamic by it. Where nothing is as it seems, it is either time to despair or—and for this, too, Descartes is our guide—to develop a rational methodology from which one can find criteria for acceptable or less acceptable claims. It is precisely here that we find the systematic justification for the methodological considerations that fill the academic journals of intelligence. The probability of being deceived and the necessity to deceive are the heart of the epistemology of secrecy that distorts the knowledge produced by intelligence into an abyss of endless hypothesizing. The *furor* of the war machine becomes a *furor* of thought. Before this background the twofold (academic and administrative) regulation of this knowledge is revealed to be the attempt to channel its delirium into controllable paths. The infinite curiosity and paranoia of intelligence must be given limits; otherwise, instead of becoming the basis for decisions, it would be lost in an equally infinite process of speculation.

In the praxis of modern intelligence services the most fundamental administrative decision in this respect is the (recently highly criticized) separation of information gathering and its assessment or analysis. Gathering and interpretation are the two foundations of any secret intelligence work: on the one side the extraction of information from assets, the treatment of concrete cases, the investigation and management of so-called sources and agents on the scene; on the other, the processing, assessment, interpretation, and—most important—verification of this information within the administration, which then reaches decisions as to how to proceed and what conclusions to make. Even though every member might be required to work "in the field" at some point during his or her training, the world of intelligence workers is divided into two fully separate spheres of activity, each with its own background and mentality. There are the field officers, the bottom rank, who are responsible for information gathering and being in contact with the agents; they often have military, police, or technical training. And there are the higher officials with a university degree making their career at headquarters as analysts and strategists. The clash between these two systems and personality types within the agency is not only planned for, but even desirable to a certain extent. While the field officers tend to act quickly, sometimes perhaps even overhastily, the analysts value levelheadedness and waiting. The actions of the people in the field are generally oriented to concrete situations; headquarters sees the global context. Field officers want to lend their sources credence (otherwise

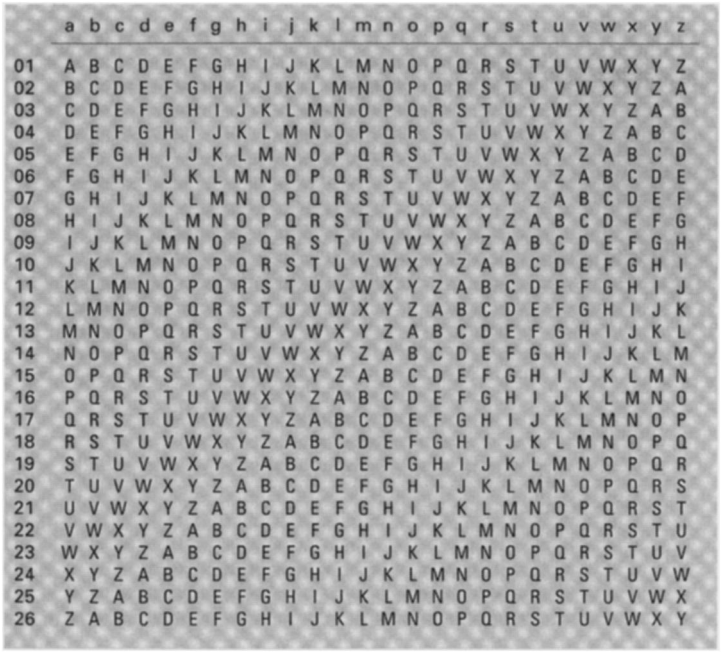


Chiffriermaschinen A. G., Enigma code machine, early 1940s.

their work would be pointless), while analysts mistrust all incoming information, requesting confirmation and oversight and tend to draw conclusions very carefully. The dullness of the headquarter analysts is meant to counter the paranoia of the field agents. This methodically necessary complementarity between the two sides can lead—as can be seen in the reforms now due at the FBI and CIA—to a systemic paralysis. But this paralysis or, better, "slow-down" of the processing of intelligence material is not too high a price for intelligence to pay if it doesn't want to get lost in the delirium of countless leads and omnipresent mistrust. The lifting of all legal limits on investigations and of all internal skepticism about one's own information would not only be a catastrophe for protecting citizens from the grasp and inquisitiveness of the state, but also a catastrophe for the meaningful functioning of the intelligence services. The American intelligence services should be cautioned against such consequences not least by their own, in part quite unsavory history.

Interception and Code Breaking

The knowledge produced by intelligence grows not just out of observations and investigations. Much of it is already present in the form of messages. Knowing the enemy's plans can be as simple (or as difficult) as overhearing his communications. Encrypted or secret transmission and interception thus have always been two of the main functions of intelligence services. Every structure that is based on communication and command—especially the military—needs channels for carrying these powerful words. In every transmission, from messengers on horseback to streaming data, there is the chance to intercept the as-yet-undelivered message, the as-yet-unheard command, to learn of the ways and plans of the opponent and to prepare oneself accordingly. The wiretapped message of the enemy has an advantage over the information gleaned by agents and informers: it appears as direct access to the enemy's plans, allowing falsification and distortion to be ruled out. Messages are always linked to the mastery of time or, more precisely, with the mastery of the future: whatever the concrete matter treated in the message, be it a command, a report, or a question, it indicates implicitly what is to



	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
01	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
02	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A
03	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B
04	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C
05	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D
06	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E
07	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F
08	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G
09	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H
10	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I
11	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J
12	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K
13	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L
14	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M
15	O	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N
16	P	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
17	Q	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
18	R	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
19	S	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
20	T	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
21	U	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
22	V	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
23	W	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
24	X	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
25	Y	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
26	Z	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y

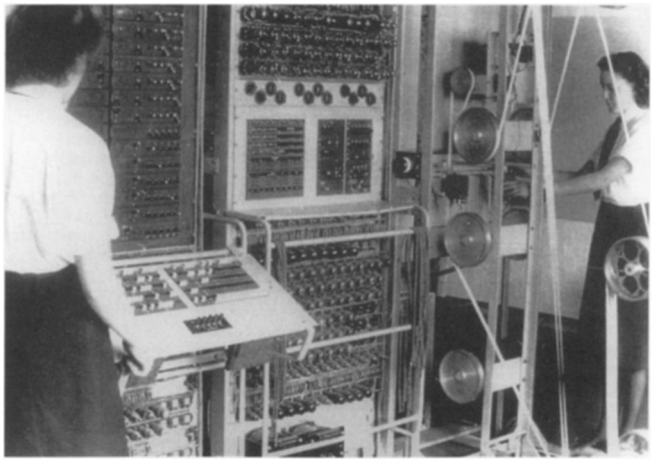
be done, both for its intended receiver and for the enemy side that intercepted it. It is this dynamic of being there first that makes secrecy and speed decisive characteristics of the war machine. In the case of the transmission of messages and their interception, though, speed and secrecy are in fact one and the same. Only the secretly transmitted report allows for surprising and preventative action; the speed of transmission, in turn, often ensures that the message remains clandestine.

Hiding or encrypting communications is the most important method for preventing the interception of messages. But merely hidden messages, whether written with invisible ink on innocuous documents, inserted into hams to slip through Muslim checkpoints, or tattooed on the heads of couriers who must let their hair grow back in before traveling, are relatively prone to discovery, even of the accidental kind. In contrast, encryption offers a kind of intellectual barrier between the unequipped reader and the message. But even this barrier cannot hold up forever. For, if we lend credence to a natural talent such as Edgar Allan Poe or to the historians of cryptography,[20] there is no such thing as indecipherable encryption—at least not given ample time to work on it. The time window between the moment of interception and deciphering, assuming an advanced state of intelligence on the enemy side, represents the amount of time for which the message is protected. In war and even in diplomatic negotiations, it is of little use to have deciphered a message after days or weeks—apart from working to break the entire encryption process, a code, or a heavily used key. In the beginnings of encryption, this time factor was limited to the craft of finding the "trick": the paper strips that when wrapped around a dowel of the correct diameter reveal a meaningful text *(skytala),* or the simple "Caesar" cipher, which replaces the letters of the uncoded text with a certain number in the alphabet. The Caesar cipher, as the original model for all so-called mono-alphabetic encryptions (in which letters are transposed or replaced with numerals according to a uniform principle) can, given a certain length of message, be easily deciphered by calculating the statistical frequency of each letter and of certain groupings (such as *the, a,* etc.). Poe explains this principle in his famous treasure-hunt story *The Gold Bug* and was able to solve mono-alphabetic encryptions nearly at a glance. The American decryption agency, the NSA, chose as its emblem—

Opposite: Code Number Table.

Right, top: Alan Turing's code-breaking computer COLOSSUS in use at Bletchley Park, 1943.

Right, bottom: The Staff of General Heinz Guderian (standing), Commander of the 2nd Panzer Division, using the Enigma, 1940.



in elegant understatement—a cipher disc based on the Caesar transposition cipher. This disc, which was designed by the Renaissance scholar Leon Battista Alberti, was itself an early way to go beyond mono-alphabetic encryption, in that for each individual letter of the clear text, a different transposition could be chosen. Such a poly-alphabetic code has the advantage that statistical frequency of the letters is blurred, making substantially more complicated and longer calculations necessary for the decipherer.[21] The basic principle of encoding—that is, the substitution of the clear text letters with other symbols—consists in dissolving language, or, more precisely, the rules that allow sense to emerge from an arrangement of characters, into mere series of unintelligible signs, mostly numbers. In the coding process letters become the objects of mathematical operations that make the patterns of language disappear in seemingly random strings of signs. The essential task of a code key is to disguise the non-randomness of language. Consequently, decryption entails identifying this calculation and undoing it, an act that doesn't necessarily mean one has found the key, but rather, as Poe writes, has used a lock pick: statistics.[22] Before there is reading, there has to be calculation. That is why in the twentieth century cryptographic reasoning gradually migrated from the slow and forgetful heads of human beings to computers. Simple machines such as the famous Enigma encode texts that other, significantly more complex machines attempt to decode in countless mathematical operations. Signals intelligence services, like the decryption station in Bletchley Park in World War II or today's NSA, thus became mathematical research labs. Modern-day cryptography is exclusively a matter for computers; their intelligence—that is, their processing capacity—has become one of the most important instruments of intelligence.

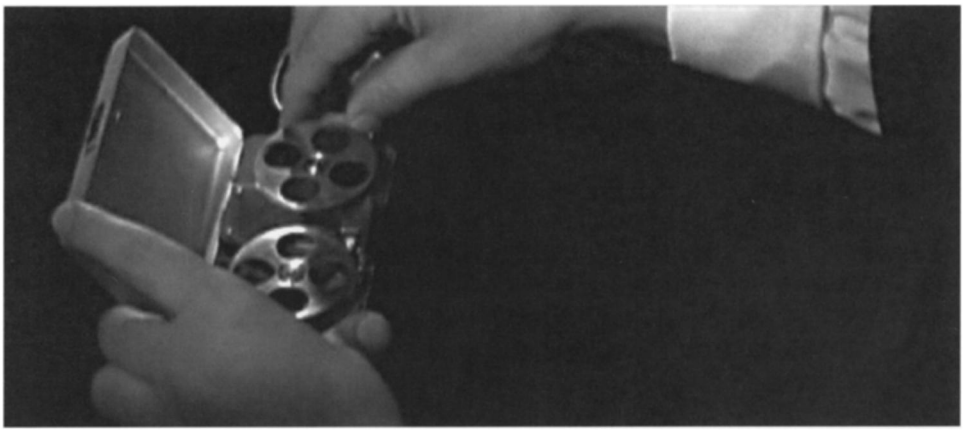
The interception and decoding of messages, like espionage, has a tradition that is not limited to the realm of war. Wherever important messages have been transmitted, there has been interception—and encoding. Secret writing is as old as writing itself. With the development of public and centralized message transmission systems such as the post office, the state directed this curiosity to the correspondence of its subjects.

The so-called black chambers instituted in Europe in the seventeenth and eighteenth centuries were busily and discretely opening all the mail, especially that of envoys or politically suspicious subjects, swiftly making copies of encrypted messages, so-called "intercepts," and having them decoded by a well-trained army of decipherers. Their universal access to all correspondence and the professionalism of the chamber—in France in the late-seventeenth century, the chambers were already erected at every important connection in the postal system—show how greatly the government suspected its subjects. Every exchange of messages was potentially the planning of a conspiracy, the conveyance of secret knowledge to foreign states, or other "damaging correspondence." Thus it was no coincidence that the central post collection sites were to become the seeds of the institutional intelligence agencies. In the Hapsburg Empire the logistical possibility of routing all correspondence through a central station, inspecting it there and processing the intercepted messages was expanded in eighteenth-century Vienna into a perfectly organized surveillance apparatus. The state's curiosity about its subjects' correspondence, however, is not a thing of the past. Today the recently achieved technical possibility to intercept all forms of electronic communication—e-mail, telephone, and radio—has inspired major surveillance projects such as Echelon. After World War II, the United States, Great Britain, Canada, New Zealand, and Australia agreed to join in a surveillance cooperative under the acronym of UKUSA, which built a worldwide network of listening posts and satellite stations for surveying every civilian and military communication. What was originally intended as espionage against the Soviet Union and the Eastern Bloc has made possible the interception of nearly every message. Search programs filter intercepted land and satellite telephone conversations, e-mail, internet data, and fax transmissions for keywords, numbers, and names, which, depending on specific interests or suspicions, may be collected in dossiers at the NSA. If intelligence is directed against "the enemy," that means that in the comprehensive access granted by recent surveillance programs, the entire population of communicators is treated as a potential enemy whose secrets have to be discovered. Protecting oneself against this boundless curiosity makes one even more suspicious. Whoever uses encryption, so the logic goes, must have something to hide, whether it be company secrets, private confidences, messages from drug dealers or child pornographers, or plans for terror attacks. In point of fact, today nearly "unbreakable" encryption software like PGP (Pretty Good Privacy) is readily available. The Clinton administration therefore tried to insist that all encryption software sold in the United States must have a "back door" built in to enable law enforcement to access coded communications in cases of suspicion. But

software like that would be of no use to anyone. In the United States encryption software enjoys the protections that apply to the export of weapons.[23] Yet for now, the race between encoding and decoding, which in essence is a battle of processor speeds, seems to have been won by encoding. Today, anything double or triple encoded with PGP is no longer decipherable by any existing computer. But even uncoded or badly coded messages—as became clear in the aftermath of 9/11—pose a problem to universal interception as big as it is banal: the sheer mass of copied messages. They have to be saved, filtered, proofed, transcribed, and often translated from the most remote languages before being interpreted. On September 10, 2001, there were suspicious telephone messages—but only after the attacks were the transcripts of the conversations found. And in the days and weeks after the attack, during the preparation phase of the Afghanistan campaign, the FBI website desperately sought American citizens who could translate the increasing amount of material in Arabic, Farsi, and Pashtun for $27–$38/hour. Mass interception, such as is possible today, would in fact need masses of skilled readers and competent analysts. The wish for total interception of all communication ends in the stupidity of keyword searches.

Exploring Spaces

If the state apparatus is what annexes, names, occupies, and oversees space, including all that occurs and is communicated in it, then the nomadic nature of the war machine, in contrast, is what ranges through it, overcoming distances and exploring spaces. The war machine makes spaces into objects of knowledge well before they are occupied, partitioned, and demarcated by the state. The knowledge produced by intelligence is thus fundamentally connected to spaces that are traversed and reconnoitered: from individual spies and local inhabitants captured by chance to agents disguised as business travelers to informers living in enemy territory. The space that intelligence explores is, by definition, opaque and inaccessible. The task of intelligence is thus to penetrate into the forbidden and protected space, cross borders, and investigate the enemy's territory. This space is by definition an uncharted, secret-filled, necessarily dangerous zone. Physically setting foot on enemy soil to spy out hidden locations, then transporting secrets back across enemy lines is the archetypal masterstroke of the spy. His disguise is important: he mimics the enemy. But precisely this becoming-foreign or becoming-enemy, the fact that this metamorphosis is possible and might ultimately mean switching sides, renders the spy as a military and political figure suspicious from the start. In modernity he is nothing but a necessary evil, a mere instrument of knowledge. The spy is only the medium of the secret: he collects, transports, and hands off information



that he is not necessarily supposed to understand. Emblematic of this is the memory artist in Alfred Hitchcock's *The Thirty-Nine Steps* (1935) who memorizes secret formulas in order to recite them to his handler in a theater. He is shot, but with his last breath he mutters numbers and sequences. He transmits a message whose content will always remain closed to him, while his death speaks to its monstrous importance. As the courier and transporter of knowledge, the spy—as elegant and sophisticated a figure he may be in the specific historical and fictional instances of Dr. Richard Sorge or James Bond—is never himself the agent of history but only ever its pure means. He works on assignment, directed by what is in many respects a "remote" office that sends him like a probe into unfriendly reaches. In the darkest scenarios of the Cold War, such as those of John Le Carré, he is nothing more than a sounding device whose demise in enemy territory is assumed. While he has to be constantly on the move, covering his tracks, invisible, the central command is static and precisely located: in Moscow's Hotel Lux, in East Berlin's Normannenstraße, in Langley, Virginia.

What is the structure of the spaces that intelligence researches—or, better, produces? If one turns to the (publicly accessible) strategy papers and research-theoretical discussions within the intelligence services, one notes that these offer little in the way of an archeology of spaces. The real spatial fantasies of the intelligence world are to be found in literary scenarios. Space is rendered intelligible and structured by its representation. Novels, a kind of "continuation of espionage through other means,"[24] develop spaces as semiotic structures. The earliest classic spy novels are readable as geopolitical tracts, essays on the necessity for protecting the homeland against invasion and infiltration. I would like to suggest three types of space that to me seem constitutive for any form of space exploration by intelligence in the twentieth century. I name these spaces, according to limits set on their exploration, the labyrinth, the Wall, and the pixel.

The Labyrinth

One of the very first spy novels, Erskine Childers's *The Riddle of the Sands* (1903), tells the story of two English yachtsmen who, in crossing the calm North Sea in the vicinity of the East Friesian islands, discover preparations for an invasion of England.[25] With the help of shallow-draught boats, the Germans plan to send troops across from the North

Nagra IV subminiature reel-to-reel tape recorder, 1971.

Sea islands. Their tactical advantage would consist in being able to perpetrate a surprise coup on an England convinced of its invulnerability, since it was protected by the sea. Childers intended the book to be a warning about the growing capacity of Germany as a sea power and a call to the creation of a volunteer Marine Reserve. The thesis that the Germans could overcome the natural obstacle presented by the islands on her own coast and initiate a wide-fronted attack was presented by the Irishman Childers, disguised as the editor of an authentic report, with the propagandistic gesture of the geopolitically informed patriot. The real sensation, though, were the maps, which are appended in order to demonstrate the situation yet more precisely. These are small-scale maps of the sands and channels in the East Friesian mudflats, with exact depth indications. The tactical inspiration of the Germans not to embark against England from easily monitored harbors but to embark as a scattered front from the shallow and treacherous mudflats is shown in these maps to be technically feasible. The precondition for this, however, is an exact knowledge of every tidal creek and sandbank, every channel navigable even at low tide, every watershed. In the novel it is the two sailors, who are as inquisitive as they are patriotic, who through exact measurement and plumbing of the sands supplement the insufficient sea charts and thus stumble upon the riddle of the sands. The ocean, the archetype of the unmarked, "smooth space,"[26] is rendered transparent through this industrious cartography, as a thoroughly structured, "striated" space with fixed rules of permeability, specific risks and certainties, points of reference, and barriers. A system of passageways and currents, deadly traps and sudden escapes—a labyrinth. The knowledge of this labyrinth offers the Germans the possibility of a surprise attack, while the discovery of this knowledge defeats the surprise effect. *The Riddle of the Sands* is a *mise-en-scène* of the map, that classical vessel of military knowledge, a desirable and forbidden object to the extent that it renders the labyrinth a traversable, tactically useful space. In producing the detailed sea charts as proof of its hypothesis, the novel itself becomes part of this tactical use of knowledge; it *is* intelligence.

Maps, the graphic construction of spaces, like spies or in place of them, have always been a key medium of military intelligence. For a long time there were thus few topographically accurate maps; they were secret, covertly commissioned, and in some cases, when they were too accurate, forbidden for public use. For centuries military leaders had to take a closer look on an ad hoc basis, filling out and correcting the rough indications of their maps. Only in the nineteenth century did the map become the reliable double of warfare. In the process, maps became a vessel of knowledge in two senses: the map "guides the operations in that it transmits ascertained knowledge about the terrain, and it is the

substrate, background, and work surface for the representation of these operations."[27] The map is a representation of space that aims at its control, but it cannot control the movements and relations between forces in this territory, even if it is their constitutive basis. As an instance of intelligence the map doesn't simply render the represented space knowable and transparent, but, in a paradoxical manner, also represents it precisely as a labyrinthine, obscure structure. For it excludes the dimension of time. Nothing ephemeral can be part of a slowly and carefully drawn map. The forces and dynamics operating in this space can only be hypothetically anticipated; the map hides as much of the space as it discloses.

The Wall

Second, let us take the Cold War and its grim novelist, John Le Carré. Le Carré's world is divided into two realms, East and West, between them a border where enemies of global reach clash with one another, two world systems whose enmity goes far beyond the struggles of bordering nation-states. Vigilantly guarded, this border—in the Manichaean political views of the time—ran between the two halves of the world, between two opposite forms of society and culture. Le Carré's world, which reflects this dualism even as it criticizes it, is divided into two further spheres of reality: the normal world, in which "everyday people can sleep soundly in their beds at night," and the "cold," the world of secret intelligence, from which, as Le Carré's most well-known novel shows, one can no longer "come in."[28] The Berlin Wall, the focal point of *The Spy Who Came in from the Cold,* is the emblem of this twofold split: East versus West, secret versus public. At the end, the defector Alec Leamas sits up on the wall, looks from one side to the other, sees the death strip on the GDR side, and, on the West Berlin side, his case officer Smiley, who has involved him in a rather perverse intrigue between the Secret Service and the East German intelligence bureau. He has a look around, and then slowly climbs back down into the no-man's land of the death strip, where he is shot. This look into both sides is an untenable and deadly position of knowledge: what Leamas's view teaches is that there is no difference between these two worlds eagerly shielded against one another—the leader of the East German intelligence service, a former Nazi, is an agent of the West; the enemy, while not exactly a friend, is "one of us." Seen from the point of view of intelligence, nothing differentiates the two societies. Even if the Wall separates no more than two equally perfidious political cultures, its virtually insurmountable nature allows both sides to produce phantasmagoria in an endless cycle. The Wall functions, to speak in the terms of another Le Carré novel, like a mirror: behind the mirror is the same thing as in

front of it, just the other way around. In the Cold War—which, to follow Le Carré, is nothing other than a *Looking Glass War* (1965)—knowledge of spaces is structured along the lines of the imaginary versus the real. The space behind the Wall is a black box whose signals and symptoms are to be decoded according to the dialectical logic of deception and being deceived. What is behind the Wall is not visualizable or mappable, but rather takes the form of a mysterious body to be sounded, subjected to tests, and observed from the outside. Whoever enters becomes a probe in this opaque and, even worse, constantly changing space. A space made up not of points and lines but rather of events and identities, power relations and cases, like the "zone" in Andrei Tarkowski's film *Stalker* (1979). Into this unfathomable space, an agent is sent, and the speed with which he is captured and executed indicates whether the terrain in question is militarily sensitive—thus the coldhearted plot of *The Looking Glass War.* The "Great Game" that espionage still represented for Kipling's dainty little Kim here becomes the bitterest kind of chess game, which Le Carré indicates with his allusion to Lewis Carroll's *Through the Looking Glass* (1872): black and white are fundamentally different and yet of the same order, but the spy who is placed on the gameboard is nothing more than a pawn and easily sacrificed. The Wall is the epistemic center of the space that it divides, but it also ensures that the two sides created by this division are alike. The world becomes a global constellation of total enmity in which there are no longer any neutral places but where everything somehow looks the same.

The Pixel

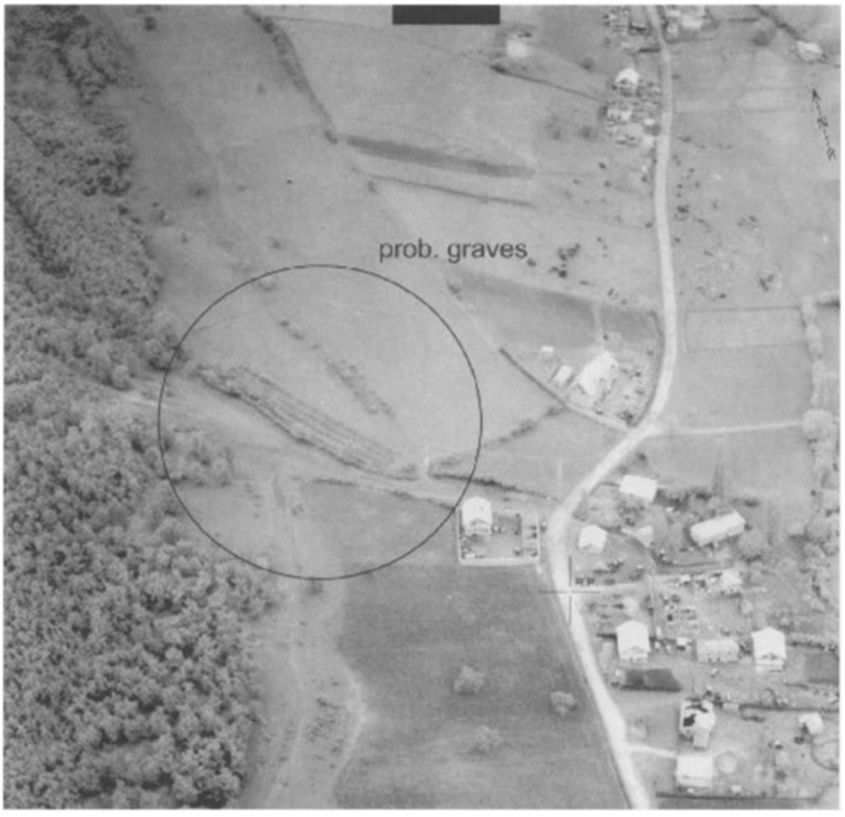
This story is not invented—it is more like the end of all inventions. On April 17, 2000, a commercial dealer in satellite photographs, Aerial Images, published on its website several images of the American military base Area 51 at Groom Lake, Nevada, at a resolution of two meters. The images had been made by a Soviet intelligence satellite and sold to Aerial Images by the Soviet space intelligence agency, Sovinformsputnik. One day later the Federation of American Scientists (FAS) also posted 1-meter images of the restricted area that it, too, bought through commercial vendors.[29] For nearly forty years the American government had denied the existence of this zone, and aerial photographs of the region were classified and even modified for internal use in the intelligence services. The myths surrounding the restricted area near Groom Lake became all the more intense: experiments on extraterrestrials were said to have been conducted in its laboratories, and in the film *Independence Day* (1996) it is the site where the horrified human race looks into the cold eyes of the alien invaders. The revelations contained in these Area 51 photographs are quite tame by comparison: rail lines, hangars, radar

Laura Kurgan. *Spot 083-264: Kosovo, June 3, 1999.* German Bundeswehr photograph of Izbica, Kosovo.

stations, and athletic fields. The lands are used for the testing and development of new aerial weapons and surveillance aircraft—but show no signs of extraterrestrial traffic. The real sensation was the way John Pike of the FAS acquired and published these materials. For the first time, highly classified material was being sold on the market, and made available to the public. Strictly speaking, though, the images were no longer of military use, as they were far too old. In both cases, the images were around two weeks old, while the orders had taken almost three months to fill. "Both firms took so long to supply the images that the war would have been over before anyone could lay eyes on them," said Pike.

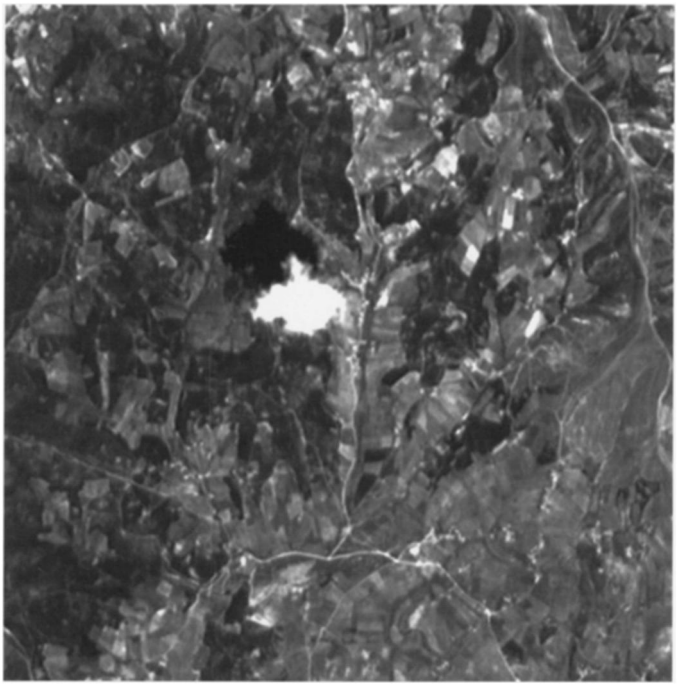
Area 51 is a first—a first in the era of the marketability of aerial intelligence. While it doesn't necessarily entail a democratization of military secrets it does make them vulnerable to the risks of commercialization. But above all it is an end, the end of the opaque and divided spaces that comprise the cartography of the labyrinth and the phantasmagoria of the Wall, as well as a political end to the small-mindedness of national secrecy, which creates zones in the middle of its own country, the names of which may not even be spoken aloud, zones like the Russian atomic-laboratory ghost cities and Area 51, none of which appear on any map. Aerial reconnaissance, it was always hoped, would do away with the intentional and unintentional blank spots on the map, and also avoid the uncertainty involved in dealing with living agents and spies. "Aerial photography," wrote one of its earliest proponents, "cannot make mistakes and leaves nothing out."[30] Aerial reconnaissance by camera sees all, cannot be deceived, and cannot lie, was the thinking. The inaccuracy of maps, the fact that they cannot represent changes in time, the uncertainty of fallible human reasoning that burdens HUMINT, is contrasted with the image-technological intelligence of IMINT (imagery intelligence) as a supposedly more objective process. Under the eye of the camera, the space of intelligence becomes smooth, homogeneous, and dreamily transparent. From above—and the higher up the better—nothing can be hidden; it is the wish for absolute clarity fulfilled. The camera, the nearly untouchable, invisible camera out in space, can fly over everything; no borders or demarcations can impede it. Methods of camouflage, dummy structures, and other defenses against aerial reconnaissance are countered by new technologies such as infrared photography and electronic image processing, which can distinguish over 200 different shades of grey. And with the new market for intelligence photos, the limits imposed by military and/or state secrecy are gradually being eroded: anyone can purchase satellite images he or she might be interested in, starting at $300.

The space under the gaze of the IMINT is homogenous while at the same time not entirely continuous; rather, it is—as I like to call it—



"pixeled." The limiting factor in the art of IMINT is resolution. Technically speaking, resolution refers to the representation of spatial units as image units; thus in a one-meter resolution, one meter is represented by one pixel. Anything smaller does not show up, for it cannot be imaged. Resolutions as high as ten centimeters are possible today but not commercially viable, and with these one can already distinguish different makes of automobile. But with the increasing perfection of seamless photo reconnaissance, which can see under clouds and beneath the earth, defenses against it are being perfected too. An increasingly important field of military research and development is the techniques of camouflage and image disruption against reconnaissance from space. The total view of the earth has intrinsic gaps, both small and large, which could become a determining factor of blindness. The gap that today is probably the most important, besides resolution, is the window of time between the recording of an image and its analysis. In a crisis, only brand new images immediately analyzed by experts are of any use, and the most high-powered research today is devoted to closing this window through improved reproduction technologies and more efficient organization.[31] Just as resolution places a limit on the visualization of space, transmission is the limit for the timeliness of intelligence; its "military usefulness" fades quickly until highly relevant material becomes merely historical.

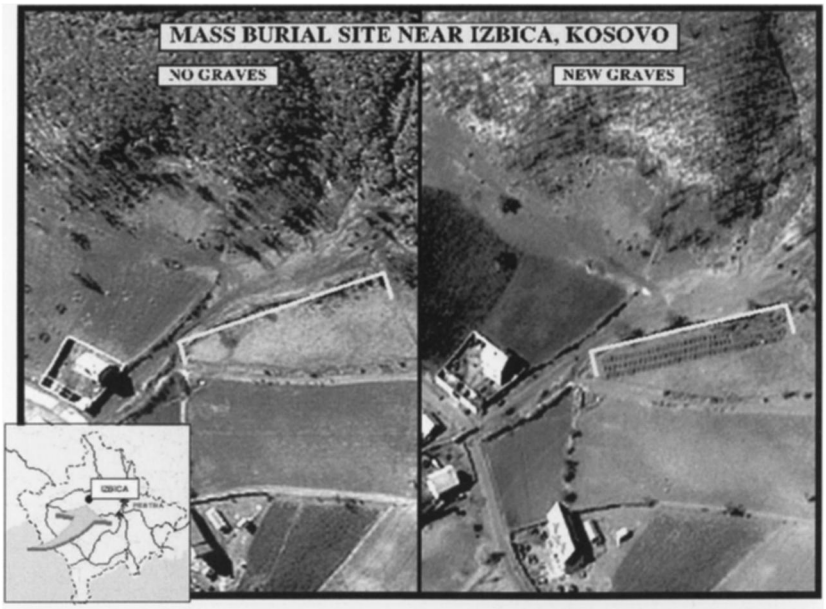
The pixeled space of satellite imagery is not the end or the disappearance of the labyrinthine space or the phantasmatic space divided by walls and borders—it has answered some of the questions they pose, but not all of them. The strategic usefulness of a given terrain, such as



Left: Laura Kurgan. *Spot 083-264: Kosovo, June 3, 1999.* SPOT Satellite Image of Izbica environs. Area Coverage: 5 x 5 kilometers. Scale: 1 pixel = 10 meters.

Opposite: Laura Kurgan. *Spot 083-264: Kosovo, June 3, 1999.* NATO Surveillance Photographs of mass burial sites and grave tampering near Izbica, Kosovo.

the mudflats of *The Riddle of the Sands,* cannot be entirely determined from the air; nor would image intelligence have answered the classical Cold War question in John Le Carré's *The Looking Glass War,* of what kind of secret weapon was being developed under the roof of a hangar in East Germany. The on-site, dangerous reconnoitering of spaces as labyrinths will never become obsolete, nor will the worrying about what occurs in zones that are not accessible or visible. If "striated space" becomes "smooth" under the sight of satellite cameras, it is still—even with higher resolutions and shorter time windows—only ever the space of "now" and whatever happens to be visible at this moment. Even a form of reconnaissance that could see into every last corner of the earth and could convey this information in real time would still be nothing more than a description of the status quo of a radically ephemeral object, good for determining at best where a given column of armored vehicles might be at a certain point of time if it continues at the same rate of speed. Technical intelligence cannot lend insight into what human beings know, think, and plan. TECHINT was a product of Cold War intelligence, which had lost itself in the pitfalls of secrecy, the treachery of moles and turncoats, and the delirium of mistrust and paranoia facing the enemy. Image intelligence and interception seemed, finally, to offer an objective form of information not clouded by lies, misunderstandings, and misinterpretations. Given the particular structure of danger in the Cold War, it certainly did a good job. But already the growth of other forms of danger in the last twelve years, such as international criminal syndicates, low-intensity conflicts, weapons smuggling, and secret ABC weapons development (as in Iraq), has pointed out that satellites and wiretap programs cannot solve every intelligence riddle. Technical intelligence cannot discover what motives and emotions make someone an enemy and to what extent he or she becomes dangerous. TECHINT is structurally unintelligent, producing streams of images and intercepts without criteria for what is important or unimportant. What human beings are planning, how human beings feel, and what actions they are considering can only be discovered by another human being. It was thus a predictable and certainly instructive reaction on the part of many intelligence experts to the terror attacks of 9/11 that they blamed the politics of increased reliance on technical defenses for the failure of



the services to prevent the attacks. But "back to HUMINT" would mean not so much getting a handle on the paradoxes and difficulties of espionage in the classical sense as pushing them even further. Faced with an enemy that operates both nomadically and globally, an enemy that one quite obviously understands all too little to preempt in any effective way, an enemy that is too foreign to effectively infiltrate, it cannot be a question of sending officers into the field or debating crisis scenarios. What is currently happening in the United States—the competition and bad blood between the CIA and the FBI, the demand for the unlimited access by intelligence personnel to the persons and property of private citizens, the increasing secrecy of data on chemical factories, nuclear power plants, defense installations, airports, and so on—is an

utterly helpless reaction, even if it has grave repercussions for civil rights. A general culture of censorship, secrecy about "sensitive data," and enhanced surveillance is the baffled answer of a cumbersome, static system against a mobile, ungraspable enemy. It is the state apparatus in its most rigid, unmovable and thus brutal form arraying itself against the war machine incarnate. For perhaps Al Qaeda is the most advanced form of a war machine, covert, mobile, centerless, and intertwined with the network of the global world economy, a system of nomads attacking the monuments and centers of global capitalism. A machine such as this, a rhizomatic structure, can perhaps only be met by the decisive dissolution of the normal order of battle, with Sun Tzu's small troop of multitalented spies. Such spies would no longer be educated civil servants, nor more or less controllable field agents, but rather elements of the grey zone of hazy networks from which international terror also arises: weapons dealers, international businesspeople, shady news traders, inscrutable journalists, mercenaries, people with a long affinity for fundamental Islamist networks. Liars and criminals, fanatics and paranoiacs, embittered and confused souls. To do business with such people, to gather reliable information from them, is a nightmare.

Laura Kurgan. *Spot 083-264: Kosovo, June 3, 1999.* SPOT Satellite Image. Area Coverage: 100 x 100 meters. Scale: 10,562,500 pixels enhanced from 100 pixels.

But perhaps the academic trend in intelligence, its segmentation into countless specialized officialdoms and the technological objectivization of its instruments functioned as weapon that only worked so long as the enemy was another state. The dynamic of enmity that became visible with 9/11 cannot be thwarted in this way. Quite possibly, the *furor* of the war machine can only be matched by an equal *furor* of tactical thinking and intelligence.

Notes

This is the updated and modified version of a text that first appeared in July 2001 under the title "Geheime Dienste. Über Praktiken und Wissensformen der Spionage" in *Lettre International* (Germany) 53, summer issue (July 2001): 56–64.

1. "Intelligence," Encyclopedia Britannica Online. See: http://www.britanica.com/dictionary?book=dictionary&va=intelligence.

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3. Isaac Ben-Israel, "Philosophy and Methodology of Intelligence: The Logic of Estimate Process," in *Intelligence and National Security* 4, no. 4 (October 1989): 660–718.

4. Ben-Israel, 693.

5. Michael Herman, *Intelligence Power in Peace and War* (Cambridge: Cambridge University Press, 1996), 34.

6. Sun Tzu, *The Art of War,* ed. and trans. Samuel B. Griffith (Oxford: Clarendon Press, 1963), 66.

7. Sun Tzu, 66.

8. Sun Tzu, ch. 13.

9. Sun Tzu, 149.

10. Sun Tzu, 77.

11. Gilles Deleuze and Félix Guattari, *A Thousand Plateaus,* trans. Brian Massumi (Minneapolis: Minnesota University Press, 1987), 352.

12. Carl Schmitt, *Theorie des Partisanen* (1963; reprint, Berlin: Duncker & Humblot, 1995).

13. Paul Virilio, *War and Cinema: The Logistics of Perception,* trans. Patrick Camiller (New York: Verso, 1989), 75.

14. On the appropriation of the war machine by the state apparatus, see Deleuze and Guattari, 416ff.

15. See also Martin van Creveld, *Command in War* (Cambridge: Harvard University Press, 1985), 33.

16. Alain Dewerpe, *Espion. Une anthropologie historique du secret d'État contemporain* (Paris: Gallimard, 1994), 224.

17. Michel Foucault, *Discipline and Punish: The Birth of the Prison,* trans. Alan Sheridan (1976; reprint, New York: Pantheon, 1977), 213.

18. René Descartes, *Discourse on Method and Meditations on First Philosophy,* trans. Donald A. Cress (1641; reprint, Indianapolis: Hockett, 1996), 62.

19. Robert Littell, *The Defection of A.J. Lewinter* (Boston: Houghton Mifflin, 1973), 171.

20. Edgar Allan Poe, "A Few Words on Secret Writing," in *E.A. Poe: Essays and Reviews,* ed. G.R. Thompson (1841; reprint, New York: Library of America, 1984), 1277–1291; and David Kahn: *The Codebreakers* (1966; reprint, New York: Scribner's, 1996).

21. One of the most comprehensive accounts of the history and systems of cryptography is still David Kahn, *The Codebreakers.*

22. Poe, "A Few Words on Secret Writing," 1280.

23. Duncan Campbell, *Surveillance électronique planetaire* (Paris: Allia, 2001).

24. Friedrich A. Kittler, "Draculas Vermächtnis," in Friedrich A. Kittler, *Draculas Vermächtnis. Technische Schriften* (Leipzig: Reclam, 1993), 24.

25. Erskine Childers, *The Riddle of the Sands. A Record of Secret Service Recently Achieved* (1903; reprint, London: Penguin, 1978).

26. Deleuze and Guattari oppose the "smooth," unmarked space to the "striated," sendentary, territorialized space.

27. Dewerpe, 234.

28. John Le Carré, *The Spy Who Came in from the Cold* (1963; reprint, New York: Coward-McCann, 1964); and John Le Carré: *The Looking Glass War* (1965; reprint, London: Coronet, 1991).

29. Available from: http://www.fas.org/irp/overhead/groom.htm; and http://www.terraserver.com.

30. Col. C.M. Goussot, "La photographie aerienne," *Révue militaire française* (1923): 27–36, 168–188.

31. For an introduction to this topic, see the unclassified teaching paper "Tactical Imagery Intelligence Operations" (February 1996) from the U.S. Army Intelligence School; see: http://www.fas.org/irp/doddir/army/tacimlp.htm.

To view Laura Kurgan, *Spot 083-264: Kosovo, June 3, 1999*, see http://www.princeton.edu/~kurgan/spot/kosovo.htm.

A Agostino (Augustine)

B Biopotere/Biopolitica (Biopower/Biopolitics)

C Potere costituente (Constituent power)

D Detenzione/Prigione (Arrest/Prison)

E Esilio/Esodo (Exile/Exodus)

F Fabbrica (Factory)

G Intelletto generale (General intellect)

H Storia (History)

I Impero (Empire)

K Kairos

L Lavoro (Work)

M Moltitudine (Multitude)

N Neri (Blacks)

O Organizzazione (Organization)

P Povertà (Poverty)

Q Quantum/Capitale (Quantum/Capital)

R Resistenza/Rivolta/Rivoluzione (Resistance/Revolt/Revolution)

S Sussunzione (Subsumption)

T Tempo (Time)

U Universalità-Singolarità/Università (Universality-Singularity/University)

V–Z Vita-Morte/D'all'alfa all'omega (Life and Death/From alpha to omega)

N for Negri: Antonio Negri in Conversation with Carles Guerra

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What follows is a transcript of a video documentary, a biographical and intellectual portrait of Antonio Negri shaped as a conversation in which the questions were negotiated in advance. The talk unfolded in front of the camera during the afternoon and through the evening of 6 June 2000 in Rome. At the time, Toni Negri was in his house under remote-control surveillance. Negri was serving an open prison sentence that obliges him to return to Rebibbia prison every night to sleep. He joked that he spends the day with his wife and goes off with his friends at night. His sentence will not be completed until 2004.

The result, a video lasting two hours and ten minutes, was organized in alphabetical form. This structure, already used in the famous interview with Gilles Deleuze, produced an interesting clash between analytical notions of his work (such as biopower *or* constituent power*) and terms with which he has a living relationship (*prison *or* exile*).*

In the course of this almost two and a quarter hours, Negri pieced together a vision of the twentieth century rarely represented with such analytical solidity and, above all, with such optimism. Anyone who has seen this video cannot help wondering how a man like this could be kept locked up in jail.

Negri has become a vital reference in the themes of social struggle and critical thought in the capitalist world. In 1967 he became Professor of State Theory of the Faculty of Political Science in Padua, though his organizational skills had already led him to set up journals such as Quaderni Rossi, Classe Operaia, *and* Contropiano. *His militancy and experience with masses have taken the concrete form of platforms such as* Potere Operaio *and* Auntonomia Operaia. *His thinking has almost always developed against a backdrop of terrorist, police, and judicial violence. His response, however, has been to dignify the potential of the masses in the face of a model of a modern, violent, and usurping state. His arrest in 1979 involved a trial marked by all manner of irregularities. In 1983 he was released from prison upon being elected a representative*

of the Radical Party and was offered political asylum by the French Government after a spectacular escape. During his fourteen years of exile in Paris, which ended in 1997, he lectured at the University of Paris VIII and became a member of the Collège Internationale de Philosophie.

—Carles Guerra

A

AGOSTINO – AUGUSTINE

We'll begin by talking about Augustine, although we could also talk about Machiavelli or Spinoza. In fact, at the end of *Empire*, a work I published together with Michael Hardt, we speak of Augustine and of the city of man, of the city that has been liberated and is marching on the city of God. This is of course a distorted, present-day Augustine who, to the desire to reconquer the happiness of the Christian Augustine, adds all the desire to transform the world. The city of man, the earthly city, is set up in opposition to the city of God, the city of transcendence and order, and to the imperial, postmodern city where man's life is reduced to a commodity, to information, to an element of war, to an element on the stock exchange. Furthermore, we mention the Augustine-Spinoza binomial because the continuity between the two is truly incredible; the transition from the formidable Augustinian transcendence that breaks with the established order of empire to absolute Spinozistic democracy. Between the two, of course, is Machiavelli: the invention of the humanist, of the power expressed in the multitude, and, consequently, the re-creation of the Latin concept of the multitude that corresponds to imperial decadence. This is a multitude that only finds liberation in spirituality, in the soul, in questioning itself, and that, in questioning itself, discovers (or discovers itself to be) power. So, then: *A* for Augustine. And, because this is such a paradox: *A* for Machiavelli, *A* for Spinoza.

B

BIOPOTERE/BIOPOLITICA – BIOPOWER/BIOPOLITICS

Biopower and biopolitics are two completely different concepts. Biopower is that terrible thing that occurs when sovereignty (the state, authority) is in a situation to take charge of life. It was once said that the characteristics of sovereignty are considered to be possession of an army, currency, education, and language. Indeed, the process leading from the sovereign State to the imperial State has consisted, firstly, in the capacity to monopolize the fundamental weapon, the atomic weapon. Secondly, it involves the capacity to monopolize currency: the value of the dollar requires only imperial sanction to exist as such, the currency of Empire; the only economic coordinate it requires is to be declared as such, and

All images: Carles Guerra.
***N come Negri*, 2000. Video stills.**

all other currencies are then compared to it. Thirdly, it comprises the expansion of English as the language of communication: CNN is a perfect example.

Today, however, biopower is also the capacity to intervene in two of life's absolutely fundamental elements: firstly, intellectual capacity, the capacity to dominate computerized communication; and, secondly, the capacity for genetic intervention. This enormous power—constructed on the monopoly of weapons, currency, and culture as language and communication—could come to be the capacity for domination of the intellectual energies currently circulating in the form of networks, by means of a form of control that allows only the transmission of the energies that are advantageous and necessary to the authorities. As regards genes, the power of Empire could become a form of intervention in life forms according to which it would be possible, for example, to generate anthropoids willing to work exclusively for the authorities. However, although this is already possible, it does not seem to be impending or even probable.

Biopolitics is undergoing the same expansion as biopower; that is, it is capable of intervening in networked brains and also in genetics. Here we have to be very cautious, since imperial power would, obviously, like to conquer this formidable capacity for intervention in the series of the constituent elements of humanity; to be able to extend along these two fundamental axes of the constitution of the new humanity represented by the brain and the gene. However, these are still in the possession of the multitude of human beings, and the possibilities of transforming and increasing their power are in the hands of man. Today, then, it is a question of playing this trump card against imperial power.

C

POTERE COSTITUENTE – CONSTITUENT POWER

I have written a substantial essay about this history of constituent power or, rather, about *the* history of constituent power.[1] It is a formidable history, dealing with the discovery of the immanence of power *tout court;* that is, of authority expressed as power, as the capacity to configure civil organization and, therefore, as the capacity to invent and to determine it absolutely. Constituent power refers to the conception of the absolute democracy of Spinoza and, therefore, it becomes a fundamental phenomenon in the history of the liberation of the modern multitudes. Experiences that can be reconstructed from this viewpoint include the great revolutions: the Renaissance, Protestantism, the English and

the French Revolutions, and, though it is a particularly cold and destructive one, probably the Russian Revolution too. Constituent revolutions are the great revolutions that have marked modern times and have returned the element of modernity to human creativity.

To constitute means to invent a common order. In this context, "common" must be interpreted as something midterm between what is civil and communism, something that constructs new names to designate the relationships (the communications) between singularities. "Common" refers to the basis of production, the basis of ethics, the basis of political organization. *Constitution* and *common* are linked in a reciprocal relationship in which the act of constituting produces what is common and what is common leads to the act of constituting. As regards Machiavelli, constituent power is the affirmation of the power of the multitude; as regards the English Revolution, it is the affirmation of the power of the equality of subjects; as regards the French Revolution, it is solidarity—what is common specifically expressed for the first time; and, with regard to the Russian Revolution, it is the giant communist utopia that, though unsuccessful, continues to be a fundamental passage in the history of men who refuse to bow to authority.

D

DETENZIONE/PRIGIONE – ARREST/PRISON

Every day, when night falls, I have to go back to prison. Prison is that panopticon, the four planes of the cells laid out on either side of the galleries and, at the center, a big empty space lined with bars to stop you throwing yourself into the void. But there is also another prison: the metropolitan structure.

I really like *Blade Runner,* a great film based on Philip K. Dick's book about the power of anticipation. He is undoubtedly a great thinker who occupies a position between modernity and postmodernity when he imagines the flat horizon of the Marxian class struggle convulsing and turning into a vertical horizon, the structure of the metropolis turning into a vertically organized structure of order, and the social issue consequently turning into a metropolitan issue. All of this has happened and has happened to us, and it is in fact one of the distinctive features in the transition from modernity to postmodernity.

So, what is prison? Prison is this state of being at the bottom of the skyscrapers, but (and this is extraordinarily important) in an incredibly productive way. It is a prison in which individuals are limited and restricted but in which universal mobility, the fruit of the worldwide network brought into being by these skyscrapers, produces the most incredible hybridization. This brings with it the spectacle of a globalization in which the directors (who may be of any ethnic origin) are at

the top of the skyscrapers with a hybrid of populations made up of people who move, flexible in the temporal order and mobile in the spatial, at the bottom. This is a mass intellectuality in the brain or personal computer of which the means of production and communication are incorporated. Prison is, then, this location of productivity in certain social spaces.

E

ESILIO/ESODO – EXILE/EXODUS

These are two concepts already referred to indirectly in the previous points, such as the one about Augustine, in which we spoke about the exodus from the city of God to the city of man.

Exile, like prison, is something that I have experienced and that, ultimately, in spite of having returned to Italy, I am still experiencing. Exile is the abandonment of one's motherland, an abandonment that has today become almost universal. If we are to live and be happy, exodus is necessary. It is true that exodus does not mean exile and that from an etymological viewpoint the two concepts do not overlap; yet there is an overlap from the point of view of the reality that has been configured, since the supposed voluntary will behind the decision to leave one's country is, generally, neither as voluntary nor as free as is made out. In order to live, to grow, and to create, one finds oneself obliged to leave.

My experience of exile can be explained as something that was at once suffering and growth; both poverty and an abundance of expressions of joy and knowledge. I started traveling outside Italy when I was still a boy; I hitchhiked all over Europe for months at a time. I learned the languages and at the same time I learned to live; I studied. I shrugged off provincialism. Italy, which before being a Christian Democrat country was fascist, bordered on the Eastern bloc, brutally closed in on itself and incapable of any form of expression of freedom. Consequently, my leaving (my exodus) was a fundamental part of my education. It was in any case a libertarian education, as from the age of fifteen I had to work for a living and get by, wherever I was. In fact, I became a regular university lecturer at the age of twenty-five before I stopped roaming Europe and the world, because I also traveled to Asia, Africa, and America.

But exodus is not simply an episode in one's personal history; it takes place alongside the great exodus of populations that we are witnessing. Not even the concept of exile can embrace the wealth of the exodus of masses taking place today. Exile is tough and distressing until it is recognized as exodus. The definition of political refugee is precisely the sum of exile plus exodus. The bourgeois becomes indignant when someone who chooses exodus is regarded as a political refugee, when often that person is simply choosing exile. The confusion of the two

terms is extremely significant because it manifests the biopolitical—that is, the liberating—consistency of such an important phenomenon as international mobility.

F

FABBRICA – FACTORY

It is difficult today to appreciate how important it was for my generation, and for me in particular, to go to the factories. Getting up before dawn to present yourself at half past five in the morning outside a big metal works or chemical plant, textile or car factory—Fordist factories with shifts that started at six and went on all day. We tried to understand the problems of the people there by means of an orthodox Marxian method; to see how profit was determined in objective economic terms, on the one hand, and exploitation, in subjective terms, on the other. Relating these two processes, we located the point at which the capitalist mechanism of production could be interrupted by means of a strike or a "down-tools," which was a fundamental element in the productive life of the factory and of production in general.

Throughout the sixties and up to 1973 we organized industrial action, formidable struggles, and strikes by thousands of workers. With these we threw the capitalist mechanism of exploitation and thus of development into crisis. The capitalist response to our actions was one of extraordinary force and precision. There was severe repression of the workers in the form of layoffs, the sacking of the most radical individuals, and the closure of the most conflictive factories. At the same time, however, capital was appropriating the creativity and the intelligence expressed in the struggles, and in this way it absorbed the very element that was throwing it into crisis.

From 1963 on the struggles in the Italian factories were of an exceptional virulence and toughness in union and political terms. In the early seventies the extraparliamentary groups Potere Operaio and Lotta Continua had the effective capacity to call a general strike of the Italian working class. Confronted with this situation, capital carried out an extraordinarily intelligent operation that consisted of the dismantling of Fordist-organized industry, of the Taylorized factory, together with the recognition that productive capacity could be extended to society in general. Until then, the factory—as the place where the boss was in charge—and society—as the place for goods circulation, the reproduction of the working class, and state investment in training—had been separate. In the wake of the struggle that blocked the productive capacity of the great Fordist company, capital reacted by making society itself productive, that is to say, by finally recognizing social productivity.

This is the origin of what we called the social factory, a fundamental

concept of May '68 in Italy, which was perhaps less important than 1968 in France but nevertheless lasted ten years. The revolt was formidable and turned the whole of Italian society upside down. It finally ended on 7 April 1979 when many of the members of Autonomia Operaia were arrested and, through legislative reform and the constitution of special tribunals, an extremely harsh, ferocious repression was targeted on us.

The social factory, from this point of view, does not consist in exporting the factory mode of production to society. It is based on a biopolitical definition of the social aspect, a definition by which all those who work in one way or another, from the housewife to the factory worker, all those who carry out training, which is training for social production, through to those who guarantee the essential services required by this social production, are part of the vast mechanism that is the social factory. What was extraordinary for us was to understand all this through its own dynamic; that is, to understand the set of social connections involved in exploitation through the social connections generated in the struggle.

G

INTELLETTO GENERALE – GENERAL INTELLECT

General intellect. In some prophetic pages in the *Grundrisse,*[2] written in 1858 and 1859, Marx identified the possibility of the growing transformation of fixed capital into intellectual capital. The power of science and intellectual cooperation would come to be the fundamental element in the definition of production and, consequently, in the definition of value, of exploitation, and of profit. We now know there is a consolidated, irreversible tendency toward the complete intellectualization of work. This tendency leads us to a productive capacity that creates marginal profits not only on the basis of quantity, but also on the basis of quality understood as intellectual innovation introduced into a form of production centered on machines. The marginal value derives from the high intellectual content of the innovation. The Marxian general intellect is, then, a definition of the capitalist exploitation that has been carried out. Nowadays it can be said that capital is intellectual or cognitive, that it is the effective, tendentious value of the whole process of valuation. It can be said that to an ever greater extent, material, living work (the classic operations of workers and their capacity to produce things with their hands) is being replaced by immaterial work; that is, by electronic tools that transform the will to innovate, the productive will, into production. This process takes place by excluding, circumventing, and surpassing human activity and capacity. We are dealing with two very precise phenomena. On the one hand, the transformation of the brain

into a tool: the brain becomes the weapon, the fundamental machine for carrying out production. On the other hand, the phenomenon of machines that are increasingly becoming human prostheses.

At this point we might consider how the concept of general intellect can be used to define not capitalist development but its sabotage, the struggle against this development. We need to ask ourselves if it is possible to imagine or to suppose a mass intellectuality capable of opposing the capitalist general intellect with the same power with which the working class confronted the owners of the machines, and how far the linguistic phenomena that constitute the new intellectual proletariat can liberate themselves from the use made of them by the capitalist general intellect. In other words, we need to find out what, inside these languages, is the breakaway element. These are issues raised by the problem of the general intellect. On the one hand, we have the immediate and direct translation of the machine-based system into a system of intellectual cooperation and relationships and, on the other hand, within this intellectual cooperation, the possibility of starting to develop alternative ways of knowing, of understanding, as points of breakdown of the capitalist autocracy.

H

STORIA – HISTORY

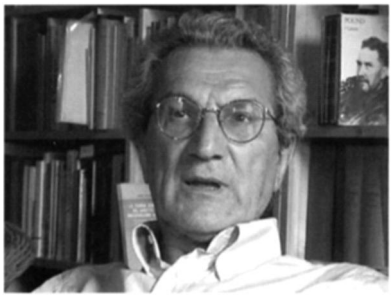
We refer, on the one hand, to *rerum gestarum,* the history of things done, which is historiography, and, on the other, to *res gestai,* which is the history that is made.

Evidently, it is the latter that I consider to be of interest. Obviously, *rerum gestarum* is important in the construction of common language, of ideology, of a thinking superstructure, but I have always been much more interested in doing things, the *res gestai,* what constitutes history *in se* and *per se*. I have found pleasure in doing things since I was very small. As a boy in Veneto during World War II, when I was ten, I liked doing things with my sister's boyfriend, who was a commandant in the antifascist resistance. They were small things, the kind of things you can do when you're ten: preparing escape routes for him or setting up encounters with his comrades and friends. This is the meaning of history, doing, being militant, making, constituting history, being on the inside at all times. The pleasure of transformation and the joy of living cannot be allowed to fade or to turn into something abstract. It is not a question of defining a destiny, but of being inside the infinite opening that each historical moment determines. There is nothing freer than each moment of our lives, than each historical moment of our lives.

IMPERO – EMPIRE

Empire derives from the monopoly of power in three main fields: the monopoly on the definitive weapon, which is the nuclear arsenal; the monopoly on currency, consisting of the capacity to set the value of money at the level most favorable to Empire as the fundamental value for all others; and the monopoly on language and communication, on information and on espionage, those great systems, those big ears that listen to the world. In a later and more sophisticated phase, Empire has also organized itself through the exploitation of the technologies of the general intellect, which are precisely the technologies of knowledge, of cognitive intellect, of mass intellectuality, and those that have to do with genetics understood as the capacity to intervene in the reproduction of the human species.

The imperial order can, in the first place, be defined as an order that has nothing to do with the old nineteenth-century imperialisms. Colonialism is over, the bourgeoisie of the former colonies send their children to Harvard to study and teach, and the wealth of the former colonies is traded on the stock exchanges of New York and London. Empire has been constituted beyond imperialism and in another place. In spite of certain interventions characteristic of classic imperialism, such as the Vietnam War, the United States is in fact an imperial state, and the imperial state imposes a biopolitical capitalist order, a capitalist biopower over society.



Nowadays there are no longer any central countries; it no longer makes sense to speak of a First, a Second, and a Third World. While the Second World, the Soviet bloc, has ceased to exist, the First and the Third are present inside every state, even if they continue to be treated as geographically distinct spaces. We find the Congo in Los Angeles in the same way that we find New York in Kinshasa, the capital of what used to be the Belgian Congo. The world today is all about the metropolis, where power is exercised from the top of the skyscrapers, connected to one another by networks, while people from anywhere and everywhere come and go, flexible, mobile, in large migratory flows down below. The U.S.A., from this point of view, is in effect an absolutely transitory place in terms of the definition of Empire, given that the latter is constituted by the world's ruling class. The world's capitalists have gathered in the U.S.A. and on Wall Street, but also in the London Stock Exchange or anywhere else.

Polybius gives us a very precise definition of the characteristics of Empire. This Greek writer, who was an émigré in Rome, defined Empire as the union of the three forms of

government known in Antiquity: monarchy, aristocracy, and democracy. In the first instance we have monarchy, which takes the form of imperial monarchy: all the power of the American nation exercised as a monarchic situation that embodies the power of destruction, the power to set the value of the currency, and the power to define information. In second place we have oligarchy or aristocracy, the sum of the world's wealth. And finally we have that strange form of democracy that are the nation-states, challenging and confronting one another in defense, for example, of their systems of welfare or their particular conception of relationship with the local proletariat. We find ourselves, then, faced with an empire that genuinely corresponds to Polybius' definition and constitutes a repetition of the Roman Empire. So, for example, just as there were dark-skinned emperors in the Roman Empire, a circumstance that had nothing to do with the old Roman senatorial aristocracy, so too we will have, within a few years, an African-American president of the Empire.

The imperial phenomenon, meanwhile, calls for an explanation more in terms of the United States than of the U.N. or the other international organizations, which were also configured as a network that was fundamentally concerned with the international order: the order of Westphalia, as it is still known, was an order in which the nations were autonomous, and it no longer exists. At the present time Empire encourages small nations to set themselves up as sovereign units. What this means, of course, and it could hardly be any other way, is sovereign units subject to Empire. The maximum of territorial democracy is only permitted within the great imperial unit. And finally we have the peace that Empire imposes, that is the peace of the rich, the peace of the bosses. Only the class struggle, only a radical revolt from the very base against this system can destroy it. As St. Augustine said, it is the city of man that must oppose the city of God. It is, then, necessary to topple God from his pedestal and really establish the interests of the poor, the interests of working people, as the truly fundamental interests and constitute them at the imperial level.

Empire is, in this respect, an advance on the previous model based on nation-states, that must serve to put an end to wars, to put an end to all the tragedies we have lived through. I myself lost family and friends in the two great wars. We have to put a stop to these bloody massacres, and we have to do so on the worldwide scale. Then we might truly create a new brotherhood, a brotherhood forged in the struggle to put an end to the power of the bosses.

K

KAIROS

The *K* in our discourse is a concept that I love: *kairos*. *Kairos* is the absolutely indeterminate time that we live and that we define by living.

Between history and *kairos* there is absolute continuity. Each moment of our lives is a moment where we can invent the world; each instant opens up to a void that can be constructed entirely. And it is the panic when faced with the void and the will to construction that make existence worthy. Precisely what seems fundamental to me here is to transform the negative experience of modernity into the positive experience of postmodernity. Modernity ends with Heidegger and postmodernity begins with Spinoza; it begins where the terms of Heidegger's negation of possibility or power, of the instant that opens up to the void of history or subordinates itself to the destiny of technology, are inverted to become the power to construct life and to reappropriate technology.

We are now at a point that is central not only in philosophical terms (at least in terms of the philosophy to which I subscribe), but also, for example, to '68: this great opening that the twentieth century constructed for mankind, that truly saw the interconnection of the development of the class struggle (the new proposals, desires, and needs of mass intellectuality) and the radical critique of all kinds of totalitarianism, of any form of authority that set out in one way or another to supplant the freedom of the subjects and the absolute nature of the desire for freedom, and the new capacity for production. Because production and work continue to be fundamental, though some people maintain that work no longer exists. How can this be? Work is everywhere, living work defines life. Without work, life is useless, it does not exist. And this is the importance of *kairos,* the fact that it shows life and time as an opening, as an explosion of each moment that allows us to fill the void. The fullness of a desire that fills the void of the time to come.

There is no destiny, no teleology, no finality. Everything is constructed each time, at each instant. Nothing is predetermined, because everything is determined, in the void of reality, by the infinity of wills that open up at each moment. And this is the richness of life, of a life that can modify itself through and through, that can completely reinvent itself at any moment. It is, in short, the randomness of what is to come, of what has to come.

L

LAVORO – WORK

Work is life. Work is the possibility of reproducing oneself, and it is impossible, in this sense, to distinguish the concept of work from the concept of life. What serves to differentiate work and life is the system of power, the system of exploitation; however, work and life are fundamentally the same thing. Marxism, for example, is unquestionably a theory of work, a theory of work and of exploitation. Capitalism is exactly the same. Indeed, it could be claimed that the only Marxists left today are the big

brokers who operate on Wall Street and in the world's stock markets. It is no accident that when the level of employment in the U.S.A. rises, share values fall; the fewer people out of work (in other words, the smaller the available labor reserves on the market), the greater the danger to share prices.

Of course, work has not always taken the same form. We find a first model in the era when mankind was subject to nature. This was the work of the centaur, the work of a man who was fused with nature, who had an organic relationship with it; this is the form of work of the peasant before technological innovations were introduced into agriculture. After that we have the period in which people's relationship to nature was that of a builder. This stage could be described as that of man-man, to adopt a term coined by Bobilus, a French Renaissance author who wrote in Latin, who defined this period as that in which man constructs nature by placing himself in correspondence with it. Work, from this second point of view, is fundamental.

We now find ourselves, finally, with a third form of work, in which man has taken the place of nature. We have entered the age of the human machine; a machine of which we form part as general intellect. And here work really has become construction; it is converted into constituent power. This is precisely the wonderful thing about work, the fact that we really can construct the world, the fact that we can—and this is the basis of true critical materialism—be and move in the realm of time, an eternal time. Our power of creation grounds the possibility of establishing another order in the place of capitalism that, as a non-natural order, is fundamentally bound to the age of mediation with nature, to the age of the man-man.

Today, insofar as we have recovered the tools in our brains, we no longer have any need of that anticipation or advance payment practiced by the capitalist that is precisely the basis of capitalism: when a person wants to work but does not have the necessary tools to do so, the capitalist offers to supply them, providing the pliers, the machine, and so on. The capitalist advances the worker's wage in the form of machinery, and the worker repays the advance in the form of work; that is, in the form of production. This formula is no longer valid today. In the new forms of work, such advance payments are not always necessary; they have been replaced by the brain, which effectively substitutes capital investment. Intellectual work, supported by the computer as prosthesis, has come to constitute the crucial element. And it is a good thing that it should be so, because it is grey matter, intellectual matter.

M

MOLTITUDINE – MULTITUDE

The multitude is something very beautiful but difficult to define. In classical literature the multitude is the *unorganized* multiplicity of

subjects. The multitude may be the common people, a confused multiplicity, or anarchy. When Hobbes speaks of the multitude, he refers to it as the common people; when Hegel does, it is in terms of *Pöbel,* or rabble. These days we refer to the multitude as a group of singularities who have reappropriated the instruments of production, the tools of work for themselves. We have, then, a multiplicity that has ceased to be a confused whole and is now plural and resourceful, that is no longer awaiting unification by some kind of transcendence, be it Hobbesian order or Hegelian dialectic *Aufhebung.* Post-Fordism is now discovering this multiplicity of productive and constructive energies. Naturally, it is a fundamental discovery because, far from constituting something defined or being a result, it constitutes a new basis for construction.

All too frequently, people who move in the field of the critique of capitalism think of the multitude as something that should, automatically, produce political forms of various kinds. This approach is a kind of return to a certain individualistic anarchism, very poor in terms both of hope and of projectuality. It is necessary to understand that this multitude—reconstructed after the end of the working class as the factory working class we saw in other periods, stratified and strongly rooted in the social and with which we worked so honestly—now spans various social and working levels, from working-class to intellectual segments, via the civil service, and channels common interests and passions. It is also important to understand that in no event does this element resolve the fundamental political problem: the constitution of absolute democracy. The problem of the multitude lies, first of all, in its being tabled, paradoxically, as a problem.

The advances made with the concept of *multitude* are vast for both political and sociological theory. However, we ought to be capable of determining the successive moments of the problem. In order to do so, the questions we have to be prepared to answer are: How is subjectivity produced within this multitude? How is subjectivity produced with a view to constructing what is common? How can the multitude be converted into constituent power? How can it become absolute democratic decision making? And in order to be able to address them, there is a great deal that needs to be explained.

N

NERI – BLACKS

It is quite incredible how the phenomenon of globalization, which is also liberating absolutely fundamental energies, is generating huge migratory movements, with millions of people moving around the world. At the same time, as we have already commented, we are now experiencing the end of colonialism. Colonialism is over; we are now in a postcolonial

phase. Nationalism is over; we are now in a postnational phase. Modernity is over; this is now postmodernity. Socialism is over; this is now postsocialism. And all of these *posts* embrace the vast masses of people who are moving and who, by means of their movement, are creating a new order.

During the process of the fall of the Berlin Wall, a very striking phenomenon took place. The wall was surrounded before it fell; people started to move southward, first into Hungary and then into Austria in trains that grew and grew in number until it was impossible to stop them. So the wall did not fall as the result of a direct attack. It fell because it was surrounded. This can be applied to most wars. In war the enemy is not usually defeated by a direct blow; it is almost always defeated because it finds itself surrounded.

The mobility of these populations, along with the prohibition on using personal computers, explains the end of the classic socialist period. The Soviet technicians, perhaps the world's leading experts in both information and nuclear technology, who created and launched the most complex missiles and satellites, were not free to enjoy their production capacity. They were not able to enjoy the universal possibility of coming to grips with the means of production, with the instrument. This is why the Soviet Union fell, not because of levels of development, which were always higher than in the West; not because of the Gulag and all those stories that, despite being dreadful and monstrous, were simply not relevant as regards the system. The Soviet system was certainly dictatorial and savage, but it never reached the degree of brutality that characterized, for example, North American policies as regards African-American blacks, far more terrible than those followed by the Soviet Union with regard to its ethnic minorities. The Soviet system died out due to the absence of freedom, due to the impossibility of the singular citizen's partaking jointly of the collective intelligence of access to the means of expression, and this is a tremendous paradox of modernity or of postmodernity.

Finally, the circulation of huge masses of people raises tremendous problems in the face of which, unfortunately, little can be done. In Europe there is a paradoxical situation where, on the one hand, immigration is welcome because it represents low-cost labor; yet, on the other, immigrants are hated because they are seen to take possession of wealth that does not belong to them. This mass emigration represents an enormous cost in deaths, in cruelty, in poverty. I experienced the major migratory movements from the south to the north of Italy in the fifties and sixties, for example, from very close quarters. But the grimness of emigration today across the Mediterranean and from the Balkans to Italy and Europe has become quite intolerable.

In this sphere the authorities naturally intervene at their own discretion.

The war in Kosovo, for example, was one of the biggest attempts to establish power to control today's migratory movements. Yet we all form part of Empire, and the Empire sanctioned Caracalla's laws recognizing Roman citizenship for all of its inhabitants. We have to fight for this right. We have to fight for American citizenship for all of the world's inhabitants, so that everyone is free to go to the country they choose. Long live Caracalla!

O

ORGANIZZAZIONE – ORGANIZATION

There is little to say about organization, except that it is necessary. In order to speak about the multitude, it is necessary to begin with organization. Never before has the Leninist question of *what to do*—that is, the definition of what the subject can do—been so fundamental, and the same goes for Machiavelli's question as to who the prince is. Consequently it is necessary to address the issue of how, in this plural world in which transformations are taking place, albeit under control, at an accelerated rate, the revolutionary can be generated; in other words, how absolute freedom is to be returned to each individual, to each singularity of the multitude.

Practically all critical thought has rejected the idea of organization offered to them by the Social Democrat and Bolshevik traditions. At this point, however, it is a question of not building up false hopes as to the generic possibilities of transforming the multitude into an organic body (as sustained by the theory of sovereignty) or as to the possibility of diluting decision making into an ordinary network. Today the problem of the multitude is the problem of a form of organization yet to be created, which can only be invented by means of struggle. Therefore, even before we talk about organization, we have to talk about militancy, however obsolete the term may seem these days.

In a very interesting article about communism ("Quale comunismo. Dove il comunismo"), Étienne Balibar, an old friend, defined two or three possible forms of communism. First, what he called *bourgeois communism,* linked to the means of production; a second form, what he called *socialist communism,* linked to the development of the working class, to "know-how" and to a certain ideology of work, and thirdly, what he referred to as the *Franciscan form of communism,* which he attributed to me in part. The latter does not take the form of reappropriation, but precisely of "de-appropriation," which, rather than setting out to wrest power from the hands of capital, creates a void around and beneath it;

which does not set out to knock down the Berlin Wall but to surround it; which shuns direct confrontation with the adversary and chooses exodus. This is, in short, the Augustinian form of the city of man against the city of God. Against the city of God with all of its consequences: against God, teachers, bosses, armies. Down with God! Out with God!

However, militancy cannot merely be limited to negation, as it then becomes very impoverished. We need a rich militancy that is capable of managing both mobility and flexibility; capable of crossing all borders and reaching everywhere; capable of introducing new needs at any moment of the day. And we need an organization that embraces all of this, which is set on getting to grips with life. This is, in short, the organization of a constituent power.

P

POVERTÀ – POVERTY

Poverty is the basis on which to construct constituent power. If we are not poor, there is nothing we can do. This is not because poverty in dialectic with wealth constructs love, as Plato says in his *Symposium*. Poverty is an absolute lack of authority and defines itself as such. Only when you have been in jail and know just how absolute can be the power that is brought to bear on you, do you understand what poverty is.

Basically I have always been rich. I come from a working-class, intelligent, very free family that always allowed me to do whatever I wanted. And the fact that I obtained the post of university lecturer when I was very young meant that I came to form part of the Italian intellectual class very early on. Yet this wealth has always disgusted me. For me, it was much more important to be with the workers, whose poverty was by no means due to a lack of money; they were poor precisely because they were strong. Poverty is not destitution; it is power and, what is more, it immediately allies with love. This is truer than ever these days, when the force of work has become the force of intellectual work that involves language and communication, and, therefore, cooperation and common passion. This places us in the surprising situation of having nothing with which to face the provocations, the violence, and the real exploitation of our time of life.

Money is the acceleration of the time of life and, consequently, the possibility of doing more things, of being rich in this sense. The time of our lives has been expropriated because poverty means having to spend many hours of the day looking to our survival, and jail is the most direct form of this expropriation. This is why we have to exalt poverty and defend militancy as the capacity to manage this poverty effectively and to translate it into revolution.

Q

QUANTUM/CAPITALE – QUANTUM/CAPITAL

Quantum is capital. Capital is a dreadful thing, yet it is also intellectually fascinating; it is a monster. Is it possible for human forms of association without capital to exist—that is, without the centralized accumulation of the means of production of the social? Engels speaks of this issue and, in general, some of the best and most brilliant ethnologists have also addressed it. In history there have in fact been periods when the community has allowed the nonexistence of capital. Moreover, the most progressive moments in history, moments of the greatest acceleration of the productive activity of the community were based perhaps not on the absence of capital, but certainly on its social distribution. What's more, having reached today's situation (with reference to the United States and northern Europe, and incipiently at least in other countries), in which production is based on general intellect (in other words, on the mass reproduction of minds that are becoming the immediate tool of production and of productive relations), capital can be overthrown as the central, unitary essence, and fixed capital can be located in the brain and in training. From this point of view—if by training we understand the capacity to reproduce mental and productive capacities that are able to assemble all the premises of production—the concept of fixed capital would be included in that of training. This may be an idealistic interpretation, in the hard, negative sense of the word, but there is an element of truth within this mystification on which it is vital to work.

Marx says that it is capital that creates the conditions of civil development and frees man from medieval servitude. This is absolutely false. We only have to think how American capital used the slavery of blacks, of African-Americans, as a fundamental factor in its growth, or how Tsarist Russia used serfs who were deprived of any kind of freedom. Basically, capital, in its form of functioning, is terrible. And we must not confuse Florentine capital, which certainly was very constructive and creative, with the general function of capital in history. It is enough to see what happened in Latin America during the conquest to see the kind of monster contained within capital.

Consequently, capital is not the force that liberates history. What liberates history, what frees us from slavery, is living work, the capacity of work to oppose capital. And only when this occurs is capital forced to assume democracy. The time has come to put an end to it, once and for all.

R

RESISTENZA, RIVOLTA, RIVOLUZIONE – RESISTANCE, REVOLT, REVOLUTION

Resistance is difficult and entails a self-reflexive movement that makes

it extraordinarily hard. But at the same time, although resistance is not a program, it is nevertheless sharp, continuous, and present in a systematic way. In the Fordist factories, such as Fiat in the sixties, resistance was already a generalized strategy. The workers did as little as possible, and when higher productivity was demanded of them, they would destroy something. Resistance, sabotage, and the refusal of work were thoroughly intertwined. But resistance is not simply a negative phenomenon. Resistance can also generate passions. It has an erotic component. Resistance produces ontological transformations in subjects and shows them their power. What has happened in Italy since the seventies—that is, the construction of entire industrial districts and the large-scale development of small industry—is inconceivable without taking into account the previous phenomenon of resistance in the factory. The workers who fought to avoid being exploited, to avoid being compelled to wear out their energy in the factory, constructing their very dignity on the basis of these struggles, left the factory to set up their own small industries, which often retained some connection with the original industry, but were also capable of producing in an independent, autonomous way. Resistance creates an enormously productive positivity.

Revolt, on the other hand, is precisely the moment in which this capacity for creation suspends the continuity of time and, in so doing, blocks it. Time takes the form of *kairos*—that is, of the instant of decision—and it is the mass, rather than the single individual, which decides that history is going to be modified. Sometimes this happens without people knowing what they want; at other times it happens consciously. While yesterday it was easier not to know, today it is easier to know. What people wanted at that moment, what really fired the passions of that recent past, was to take the place of the capitalist, to construct a democratic system to do what the boss was doing. Capitalism as a system of production is a skeleton in the closet of every socialist and union movement. If this is not so today, it is precisely because we have the capacity to make things by using our brains.

In the stage we are at now, given that the capitalist advance payment is no longer necessary, there is no need for the intervention of capital. As a result there is now the possibility of a revolutionary form of reappropriation of the general intellect, and it is precisely in this power of the reappropriated general intellect that the relation between resistance, revolt, and revolution can manifest itself. A relationship that we carry within us, present even though we imagine it in the future. A relationship that is the invention of new desires, of new images of life, and one that is based on the incredible capacity we have for generating and inventing new things in a cooperative way. Today we experience the

same sense of wonderment in the face of the revolution as we would at something as normal as having a baby. We know that it will be born one way or another.

S

SUSSUNZIONE – SUBSUMPTION

Subsumption is an ugly concept. It is a Marxian term that describes the relationship between capital and society. It is important, however, to make a distinction between two kinds of subsumption: the formal and the real. At a given moment in the development of capitalism, the forms of production that had nothing to do with capital (forms of agricultural production, of fishing, or craft manufacture) were subsumed; they were incorporated and reorganized by the incipient capitalist hegemony when the structure of the big factories, first textiles and then cars, began to organize the whole of society. This type of subsumption is known as *formal subsumption*. It is the formal aspect of capital that includes the various productive activities.

Real subsumption, on the other hand, is a hegemony of capital without limits. Here the form of capitalist production has intervened in and occupied every space in society. Society itself has been converted into a factory. The walls of the central factory have come down, so to speak, and the whole of society has been invaded by the factory regime and, consequently, by a generalized disciplinary regime. This subsumption is, precisely, a real subsumption of society by capital; society is configured in a disciplinary way through the development of the capitalist system. This is the situation in which we have found ourselves since the middle of the twentieth century.

From this perspective, May '68 is not simply an important date in terms of the student revolt or the emergence of new intellectual or moral desires within the intermediate classes of society; it is also a moment of extraordinary significance, above all in terms of the realization of capitalist domination of society; in other words, in terms of real subsumption. With '68, the limit of this subsumption was reached, the limit at which the intellectual workforce was obliged to transform itself into a center of the process of capital's domination of society. This is the moment when real subsumption was translated into the hegemony of the general intellect. As a result, we can speak of the emergence of a society in which communications and linguistic values, innovative from the intellectual point of view, assumed a central position. While it is evident that this kind of discourse entails excessively sweeping generalizations in terms of the examples or ideas put forward as models, and any number of objections can be raised with respect to these, it is nevertheless the case that we are dealing with objections that

serve to enrich the framework without invalidating it as a whole.

Finally, it is worth outlining here one last problem with respect to subsumption: that of the relationship between the letter *r* and the letter *s*. What do resistance, revolt, and revolution signify within subsumption? They signify everything and nothing. It is true that subsumption has reached the extreme of enveloping every intellectual subject in the capitalist process. Now this would seem to suggest that everything, from the point of view of material progress and the construction of individuality, is set in its course, that the revolution will no longer be progressive. From this point of view, creative power, what Marx called *rich individuality,* is also present in subsumption. Nevertheless, it is up to us to liberate it, because it is through this liberation that the most formidable intellectual, moral, and scientific productions will emerge.

T

TEMPO – TIME

I've written only a couple of things about time in my life (the first, *La costituzione del tempo. Prolegomeni*[3] in the early eighties; and the second, more recently), and I wrote both of them when I was in prison. In total, I've spent over seven years in jail, and it'll probably be eight or nine of real imprisonment in total. And, for whatever reason, it's when I'm in prison that I think about the question of time.

The problem of time, for me, basically consists in understanding what constituent time is, and therefore Heidegger's view and its opposite: Spinozistic time. Hegel said that Spinoza did not know time, that he was a sad philosopher who had the same conception of time as a consumptive, a sick person waiting for death. Yet I think that just the opposite is true, that Spinoza has a conception of creative, constructive, liberated time. Although we all know that we live to die, we also know that the time between the present moment and our deaths can be, firstly, more or less happy; secondly, more or less constructive; and thirdly, more or less revolutionary. In the first case, for us; in the second, for us and for others, and; in the third, for us and for all humankind.

Time is something that evades us in the very same instant that we perceive it and consequently takes us closer to death. But it is banal to think of death in these terms, since the important thing is knowing how to resist this death, how to face up to the course of time, and how to break with this negative dynamic by constructing other things. It is important to consider the meaning of love, of generation, and of eternity within this process. Eternity, for example, means that we remain, eternally, in the things we do at a precise given moment; it means seizing time and grasping it to prevent it from dying. In this sense it is something inalienable. We are not immortal, yet we can say that we are eternal in

each thing that we do. Consequently, the meaning and the responsibility of life derive from the eternity of each moment.

In short, time is the alternative to the pointlessness of living in order to die and the fullness of eternity. I think that this is what militancy is. Concrete, revolutionary, communist militancy means realizing that we are bearers of eternity. For ourselves, in pleasure; for ourselves, our friends, and the people we live with, in the construction of horizons of life; and, for ourselves and humankind, in decision making and revolution.

U

UNIVERSALITÀ-SINGOLARITÀ/UNIVERSITÀ – UNIVERSALITY-SINGULARITY/UNIVERSITY

I have worked as a university lecturer on various occasions in my life. I was very rigorous in my work, writing and translating (for example, I translated Hegel into Italian), and of course I did what lecturers do at university: teach young people stupid things. At the same time, in my concern to singularize existence, I went to the factories. I would get up at five o'clock in the morning and go from Padua to Porto Marghera, to the big chemical factory. There, outside the factory, we engaged in political agitation. We organized important strikes back then; we even managed to close down the petrochemical factory in Marghera. Once, in 1963, we organized an all-out shutdown of the installations, and the accumulation of gases this produced caused a huge flare-up. We also managed to change the shifts in the factory (a chemical plant with 10,000 employees where the shifts were vital to worker safety) on our own, without the boss or the unions. It was absolutely crazy; I've never seen anything like it in my life, and I'm sure I never will again. Then I would put on my tie, go back to Padua, and at nine-thirty I was giving classes surrounded by a group of fascist lecturers.

Later on my students started to come with me. They came along and met the workers, really capable and intelligent people. In fact, they were the same people who went on to build the great wealth of the Veneto, workers who easily slipped into the role of capitalists because they knew the struggle from the inside; when they were laid off (some even ended up in prison with me), they set up their own small factories, and, in time, they managed to amass tremendous fortunes. They were more intelligent than their former bosses and, above all, more intelligent than the union leaders or the Communist Party members who went into the factories to deliver absolutely anachronistic speeches. They were excellent

people because they understood that the important thing was to produce, to dominate the world, to construct it. And, at the same time, to create passions and desires without reducing them to mere commodities.

While all of this was going on, the university served to reaffirm the issue of singularity for me and for all of my colleagues. For example, Luciano Ferrari Bravo, who was my first assistant before going on to become a lecturer himself, as well as a very dear friend and brother, died recently. Luciano, one of the loveliest and most intelligent people ever to have lived, served six years' preventive imprisonment without a trial and was released without charges, acquitted of everything. I was convicted because there was nothing else they could do, but they should have let him go; him and many others. Our trials were absolutely abominable. The Italian State has been the most repugnant, odious State imaginable.

V–Z

VITA-MORTE / D'ALL'ALFA ALL'OMEGA – LIFE AND DEATH / FROM ALPHA TO OMEGA

And, to close, life and death. Or rather, alpha and omega. What is there to add? That we are eternal. That we are eternal each time we make a decision, each time we face up to a moment in time. This eternity in an existence, which as such is in fact transitory, is absolute and cannot be canceled out.

And this is where morality comes in. It is only possible to be moral and ethical in eternity. If I say to someone "I love you," I am saying it for eternity; I am committed to that person for eternity, not just in that moment. Because the truth is this coincidence between my declaration, my construction of the world, and eternity. Consequently, if I say "I exploit you and hurt you," I am also saying and doing it for eternity. This is what is unforgivable; not the fact of hurting someone, but of doing it for eternity, which is defined in this instant.

Notes

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1. Antonio Negri, *Insurgencies: Constituent Power and the Modern State,* trans. Maurizia Boscagli (Minneapolis: University of Minnesota Press, 1999).
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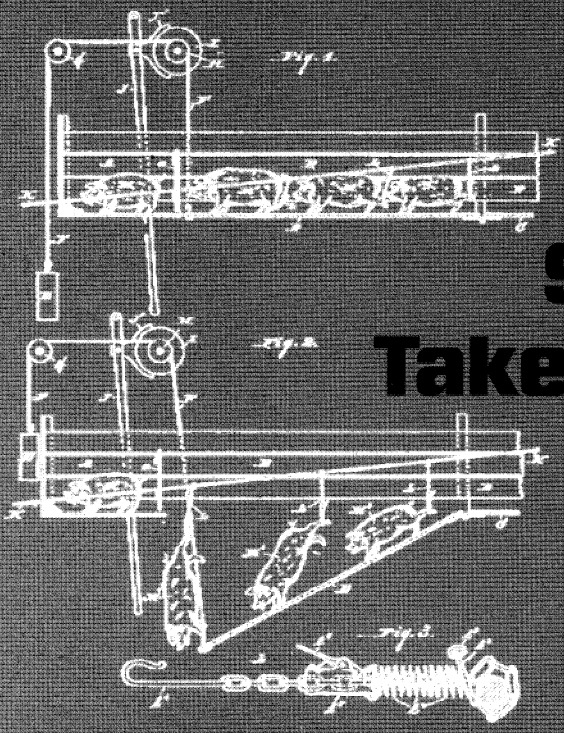

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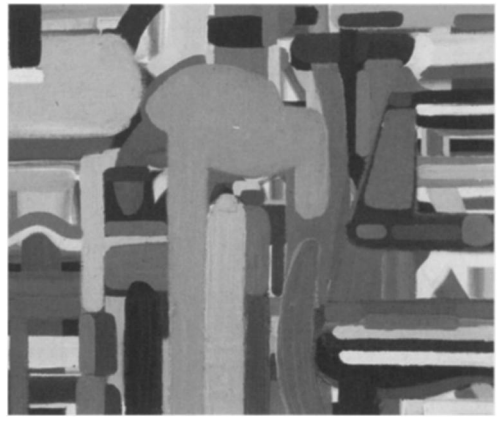

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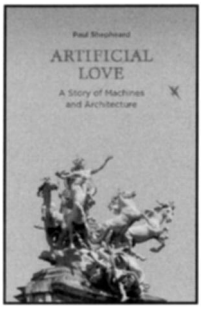

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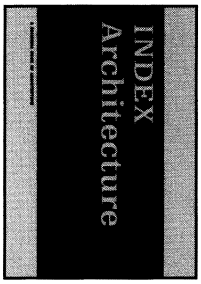

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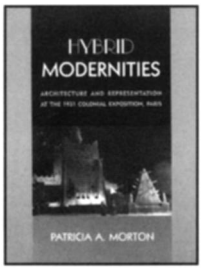

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