M49: Machine For The Living
A Performance Broadcast through an Interfering FM Radio Transmission

By
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Submitted to the Department of Architecture In Partial Fulfillment of the Requirements for the Degree of Master of Science in Visual Studies at the
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Abstract:

The focus of the M49: Machine For The Living project is a performance work that considers the omnipresence of layered communications, which extend, yet supersede corporeal space of the individual. M49 creates a framework to reveal the convergence of immaterial communication with the built environment through an interfering radio transmission. The performance elucidates conceptual boundaries revealed in the breakdown of a system. The project investigates effects of the sub-visible ambience that overlaps and engulfs structures of urban inhabitation.

"What appears in the cathedral of radio noise is an image of the individual as a machine making meaning in a feedback loop between human and alien forces. Without any point of reference or authority, the individual must decode the ether daily, or at least what is transmitted through the so-called ether for human ends. Daily, we work at separating meaning out from the multi-dimensional ether-sphere with its uncanny plenitude of signals that surround us, while the actual electromagnetic lattices beyond our inelegant organic makeup spin a deeper mystery."*

Joe Milutis, Ether

Thesis Supervisor: Joan Jonas
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Contents

I. Abstract, M49: Machine for the Living
   M49: Machine For The Living, Performance Incident Graphic
   Argot Public Works Projects; Brochure Layout

II. Spatial Representation
   A Recent Mode of Design for the Simulated World
   Sprint: ‘No Down Time, No Waiting For Answers’

III. Temporal Representation
   Threshold to a Void: A Note on the Absence of Natural Light

IV. Radiation and Containment

V. Unlicensed Radio

VI. Project M49

VII. M49, Interference Structure
   Antenna Radiation Grid

VIII. Layers: Method and Itinerary

IX. Procedure: An Instruction Manual for the M49 Radio Play
   Inputs

X. Brain Building (46)

XI. The M49 Radio Play, Script: A Fictional Truth
   Part 1: Intro
   Part 2: Interference
   Part 3: Restoration

XII. Invasion

XIII. Installation M49: The Argonaut

XVI. Bibliography

XV. Image Inventory
M-49: Machine For The Living

An Incident Performed and Transmitted by Maximilian Goldfarb from the M-49 Building 46
(McGovern Institute For Brain Research) at the Massachusetts Institute of Technology

Funded in part by the Council For The Arts at MIT
A Recent Mode of Design for the Simulated World

'To experience space is to engage with it through one’s presence, to possess it by being immersed in it, in the way one possesses space when inside a room, an a park or on the streets. In the process of interacting with the digital world, we can consider real space as the site where our bodies come into contact with the technological devices by which we experience virtual space.'

-Henri Lefebvre, ‘The Production of Space’,

‘...Discourse architecture is the practice of designing and evaluating networked environments to support conversation, discussion, and exchange between people. The Social Technologies Group researches and practices discourse architecture to address two questions: (1) What is a good public space? and, (2) What technology can be designed to make a public space better?’

-Warren Sack; Social Technologies Group
In the past, buildings seem to have been designed to maintain fixed identities, functions and boundaries. Of course it is now more likely to be understood that a building, or any spatially designed configuration, is an ever-changing territory, not unlike the basis for malleable use-flexibility formally sought in the vision of Metabolist planners.

Spatially, the contemporary city is based on a confusion of scales and the loss of a sense of physical geographic boundaries as infrastructure fully incorporates infinitely-channeled, wireless zones of transaction. Technology, and in turn illusory experience, has made its incursions into all facets of day-to-day existence, offering the great power of telecommunications as generally de-localizing forces.

This ‘de-localizing’ force is a subject of controversy between traditional value systems, and those that aspire to utilize technology to reverse processes of cultural domination.

Theorists of Phenomenology had understood architecture in concrete existential terms and qualitative experience. The discipline of discourse architecture has inherited the mission of the *recovery of place*[^4], taking into consideration the notion of what is referred to as the *stabilitas loci*[^5]: -How is stability of meaning compatible with the dynamics of ever-changing, ever-reforming conditions? The essential contradiction of applying traditional philosophical views to vanguard practice which seeks to transcend the limitations of past theories, is at the core of ones orientation to their environment when embracing the devices of communications technologies. ‘despite all the talk of "postmodern nomadology"… most people’s actual experience of geographical mobility’ is still very limited. That is to say, ‘global cultural forms still have to be made sense of within the context of what, for many people, are still very local forms of life’. In other words, the global is filtered through the local and, increasingly, through local mobility.’[^6]

The term, *genius loci* - the total environment made visible -was used in the context of Phenomenology to consider qualities of the built environment. The term can be applied by theorists of media-constructed environments, to describe their effort to understand and build upon the new spatial/relational conditions with which we are now so often engaged.

We spend increasingly more of our time in, for example, on-line communities and marketplaces -professionally, socially and practically. This medium is also the
connection between fragmented physical 'places'. The methods practiced by discourse architects are attempts to analyze how this new public space is used, in order to develop these constructs in meaningful ways that will reflect their use in a qualitative, relational manner.

Graphical interfaces are the thresholds from which to begin to navigate a meaningful correspondence between site and settlement.*7 Phenomenologist logic spoke of the concretization of 'life-situations' to keep and transmit meaning; -that we cannot create meanings that are entirely our own, but interpretations of our relationship to our environment. (In this case, language is the mediator in the balance between the physical world, and social, political, economic articulations). The visualized world of discourse architecture is just such an interpretation, and the semantic and visual constructs are the boundaries with which some seek to reclaim a sense of place –and in turn identity located within.

'Visualized' architecture is the morphological study of structure and use through language, within the terms of how we are reinterpreting the nature of identity, and interiority. Essential to these historic, philosophical views, the existential purpose of building architecture is to make a site become a place -to uncover meanings potentially present in the given environment: human identity is a function of places.*8

As a result of culturally devalued material conditions, we are focused on the evolving virtual sense of place as a way of reorientation to a new duality: Perhaps there will be a more closely related structural meaning developed between the interior psychic world, and a visualized architecture that functions with similar conditions of interiority. What was formerly known as the natural environment has been culturally absorbed, unifying material with its opposite and banishing 'landscape' as a filtered ambient 'back-drop' to cultural destination, or resource to exploit.

Robert Smithson considered construction sites as ruins in reverse*9. Such temporal mirroring represents an unfolding of progress under the duress of material constraint. The discourse architect, in the spirit of the Utopian 'no-place', encourages boundlessness in the merging of interior lives with exterior conditions. This striving indistinction under media directives can simultaneously facilitate freedom of, or dominance over the individual by external forces (the present qualification of the
‘individual’ fulfills what physicist A.M. Low aptly referred to as a ‘material-informational entity*10). Standardized language and unification into a social ‘whole’ is the principal of outmoded, exclusory social organization*11. Here, we are a threshold, -the place that gathers the potential for both conscious, willful life and oblivion. The consumer of this condition is increasingly more porous: impacting and affected. Systematically eliminating constraints of concrete worlds, the modern citizen seems to be voluntarily undergoing a reengineering of the psyche, and a reorientation of physical existence in the world. This faith in techniques of remote interaction, consummates the interplay of material and ethereal existence; ‘...a new hybrid urban fabric [consisting] of three elements: bodies, infrastructure, and infostructure.'*12

The constructed, ‘visualized’ world is initially only a reflection of constructed, yet precarious meaning. Once inhabited though, it is a cultural, language-based place comprised of man-made elements, where meaning continues to be derived from locality*13—yet the idea of locality has been reinvented rhizomatically as a byproduct of interrelationships that occur on vast, semi-predictable scales. The essential understanding of the nascent, visualized world will be located in the area from which we interpret, gather and define our sense of place in the world, if there is to be such an area. Visualized architecture is the interior ‘space’ of a tangibly constructed world, which serves as the new nature construct. (Maybe this is where Smithson’s investigations resound: In a state of such insulation, one can have a driving inclination to find material ruptures that will reveal the mortal qualities of ever-disintegrating and expanding surroundings —the extended ruin of entropy). Contemporary social and structural conditions operate on the basis of interconnectivity. As a social participant existing among others, we exist only insofar as we acknowledge our place as a specific (momentary) position in relation to a larger system. We are ghosts, disembodiments in transit; requiring reorientation within the construct of this architecture of interaction. Are we vulnerable to disintegration or individually liberated by the possibilities of shifting identity in a dynamic environment? What is known is that complex social systems have determined limitations in architecture.

‘...Our epoch is one in which space takes for us the form of relations among sites...we live inside a set of relations that delineate sites.'*14 -Foucault; Of Other Spaces: Utopias and Heterotopias
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'An innocent reunification between the fragments and the whole is no longer possible; the intervention of artifice is a necessity.'*15

-Manfredo Tafuri, *Machine et Memoire*

Throughout Chris Marker's 1982 film, *Sans Soleil*, the artifice of the constructed world is seen in such close proximity to primitivism, tribal ritual, violence, death, lust, decay: The qualities that the modern world, striving always to be seamless, would prefer in its mission to eliminate.

Documented without flourish, a giraffe is slain in paroxysms of streaming blood. Curiously though, the blood-geyser appears to be slightly unreal as the gushing blood of theater; too red, too exaggerated in its projection, comically spraying out of the absurdly long neck like a jungle cartoon. Can the saturation be adjusted? The last flinches of life leave the animal.

The treatment of each image in Marker's collage-like film begins to anticipate the specific conditions that will apply to its own state of degradation and collapse. This, of particular interest to me, lingers as thematically sub-audible and sub-visual conditions in the uncanny relations between the individual and his context*16.
As we observe the monotony of commuters on a bus, we are offered sudden glimpses of raw defoliation. Tethered tightly to death in sleepy, rote urban behavior, the passengers move through space and timelessness. They are connected always to possibilities of instantaneous disintegration and all the more in their complicit oblivion. The images might be flashing in an attempt to induce in us an epileptic seizure to endure in their proxy. (Is the viewer affected by an image, -by what he sees, when all is suspect of simulation, distortion, manipulation?) We spectators suffer for Marker's subjects in the burden of our consciousness. But as the commuters are tethered by a short lead to their doom, we are also tethered. We are tugged back into the film's rhythm, -towards another quotidian exercise in cultural interaction. We are navigated past buildings, signs, planes, buses, -only to then return to another ferocious upheaval, political unrest, savage bloodletting and then more listless, alienated wandering.

Among so much collapsed time and space, what is revealed is an adjacency of melting culture, disintegrating history and filmy decay, as it captures fleetingly framed fabrications of memories. Foretelling the bogusness of reality-ism, the staging of behavior is mocked; why should the camera command its subjects to not look at the lens, -to continue unabashed and real among the deterioration of their world? -Might they forget about these environs? In an image-culture, polarized events are equally treated in their mediation: a democracy of ghosts*1. Sans Soleil –Sunless: no shadows are cast. No volume, no substance, just flatness within darkness. No electricity? No place.
"Video games are the first stage in a plan for machines to help the human race, the only plan that offers a future for intelligence."*18

It is an uncomfortable transformation that the body and mind must adjust to as evolving languages of representation are internalized. -Representation that mirrors not just our image, but also our spatial occupancy, our movements, sound, emotions. This leap across the gap that once separated material reality from perceptual grandeur indicates the 'plan' as one of total immersion. That even as simulation scenarios amuse, they are follies we eventually inhabit and engage with towards an offspring of enhanced life not confined by spatial and temporal enclosure. Further, this para-human view is the hope of reconciling our awkward adolescent stage of technology. Sanctions on the sublime have been lifted.

New cultural phobias have arrived with each advance towards the immersion into technological effect, and bodily inhabitation as part of a pattern begun with our relationship to early technologies that project or receive image and sound, and extend ability, perception, and presence, deriving from seemingly mystical (invisible) sources. Broadcast radio is a hallmark historic example of such phenomena.

Cultural prosthetics may dissolve conceptual inhibition between man and the *machinic phylum* *19. At present however, the uses and ingredients of accessible, omnipresent technologies may be redefined to elicit matters in need of interpretation.
Radiation and Containment

The fluid medium of radio becomes an area of investigation where ethereal states and projected inhabitations can be seen as evolving doubles; externalizations of the body that continue on in advancing fields of energy beyond physical constraints. Voice transmission always refers back to corporeal source, which is a non-static entity. 'All bodies are in a state of perpetual flux...[which] can be understood not only in a physical but a phenomenological sense. The lived body constantly transforms its sensorimotor repetoire by acquiring novel skills and habits. In its use of tools and machines the body supplements itself through annexing artificial organs. A phenomenological anatomy cannot then be thought of as fixed over time, or even confined by the physical boundaries of the flesh. It must take account of the body as living process.'

Tectonic qualities of analog circuitry predate, yet foretell of the disappearing act of increasingly less-visible technologies much in the way that utopian architectural directives attempted to make the 'architecture' disappear to foreground the subject, its inhabitant. As the relevance of anatomical architecture (the bodily inhabitation of the subject) begins to recede in turn: the composite of one's identity remains. Identity transposed into predictable data, -an evolved stage of easily accessed, controlled and
standardized individuals, is a volatile Utopic realization that allows for abandonment of burdensome physicality into the ethereal no-place of places. As incipient social relations and networks form, there is an interplay of these social ties with preexisting stores of data, economies, remote operations and various arcane electronic residue. A formlessly unconstrained exterior is the basis of disembodiment, the opposing twin of 'body extension'. In examination of imperfect atomic microstructures of crystalline aggregates, metallurgist Cyril Stanley Smith described characteristics of the thin layers that separate crystalline form: ‘Boundaries are a source of both strength and weakness, and they provide sites for the beginning of any crystalline change. Though themselves invisible... they are easily revealed as lines of enhanced chemical attack.’*21
Bodies, and the instruments that amplify or protect them, and incorporate external information, are the mediating stage for dialogue between the interior self and the external world. There is need for a constant modification of levels of engagement and resistance to our cultural sphere as there is to our outer physical conditions.
Unlicensed Radio

"Encouraging un-zoned urban places, no longer centrally controlled, would thus promote visual and functional disorder to the city. My belief is that this disorder is better than dead, predetermined planning...."  

Radio transmission as a medium, and broadcast radio as a nebulous site for experimentation, are milieu that contend with spectrum management.

Unlicensed, low power broadcast radio ('micro-radio') is an enterprise that has always been at odds with larger governing bodies throughout broadcast history. Micro-radio is composed of a diverse set of sub-culturals that challenge established zones of the built environment, and heavily regulated media conditions. Extra-categorical systems have always emerged from monitored and controlled airwaves in myriad inventive tactics of unlicensed broadcast in efforts to combat oppressively narrow representation of the individuals' orientation within a larger system.
Issues surrounding radio frequency allocation have distinct parallels to continued considerations regarding the urban plan: a primary mechanism for innovating methods for spatial command of the subject. As a developing framework that is founded on the interrelations of individuals within a 'spectrum' of organized properties, the issues raised by defining the radio spectrum encompass the same attributes and conflicts as the organizing principals of the city. The architectonic of spectrum management places 'the subject' within a system that distinctly persuades through clear prioritizing and forming of value and opinion. Central to the arguments of unlicensed operators that seek a place from which to respond and contribute to the programming of cultural identities, is the fact that these values and opinions are limited and alienating to many individuals and communities that hope to express their parallax of beliefs, and create inter-subjective relations perhaps incompatible with the needs of a consumerized culture.

Several cultural critiques in the first half of the 20th century, in the advent of broadcast radio, included the skepticism that broadcast radio maintained an imbalance of power as it did not allow for listener feedback. Italian avant-gard artist FT Marinetti, in his radio art manifesto, Radia, encouraged the use of radio as an apparatus capable of intentions beyond mere distribution. Bertold Brecht spoke of the one-directional flow of information that could be used to dangerously unify a culture, operating as a powerful propaganda tool to flatten the multiplicity of listeners. He warned of a lack of collective participation in such amplified broadcasting of voice. Though media that allow
for too much feedback can produce another form of non-productive, incommensurate cacophonies.

Management of the radio spectrum is conducted by the federal government in the public trust. Operators unable to obtain required and heavily controlled license privileges argue that they are unfairly denied rights to utilize this ‘territory’ owned collectively by the citizens of the United States. The immediate impact and usefulness of wireless communications lead to federal control of this dynamic ‘public’ space, predominantly dedicating areas of the radio spectrum towards federal and commercial use. Mostly, feared chaos of interferent signals had justified the thorough framework for control. (This is an argument still used today to justify limited low power licensing, though the position has proved to be inaccurate). The Communications Act was developed to give the federal government the broad power to regulate and grant licenses for the entire spectrum in the United States.

The Federal Communications Committee, originating from the Communications Act*24 (1934), was formed as a federal agency empowered to regulate the radio spectrum. The Hertzian demarcations employed to govern the radio spectrum are analogous to the characteristics of physical geographies, and the ordering of properties as a regulatory structure. The reordering of the spectrum into its compartmentalized sub-divisions bears an interesting parallel to the congruities and limitations of an urban plan as it is imposed upon the built environment.

The frequency allocation ‘map’ is aptly visualized as a tightly organized geometric grid, compartmentalizing licensed areas, and attempting to eliminate any gaps in the resources of the spectrum. One can see clearly the priority of the allocations when examining the legend: the majority of non-government exclusive frequency is dedicated to commercial use.

Many historic examples of urban renewal programs illustrate these similarities, but specifically the example of Georges-Eugene Haussmann’s Parisian renovation in which an urban plan, imposed onto the existing dynamics of the city, had significant, cultural impact. The regulatory nature of the plan on existing territories exemplified what J.B. Jackson would refer to as a momentary triumph of geometry over topography*25. Consequentially, emergent properties, new architectural typographies and idiosyncratic
improvisations, occurred as extensions or outgrowths of the program, and manifested from within the seams of the larger superstructure. These were not systems failures, but organic structures stemming from tendencies of use by urban inhabitants.

Huassmann, lawyer and civil servant appointed to the position of planning Paris, accelerated a massive implementation of urban reordering that was super-imposed upon the older, pre-industrial city. Through the reinforcement of existing hegemony by strategies such as eliminating the narrow reticulum of streets, and leveling neighborhoods of the underclass, the effort intended to undermine previous strategies for revolutionary activity, and alienate the members of the working masses forced from the city center. This effort created a framework for management that reduced possibilities for spaces in which insurrection might occur. With the intention of creating the subject as a fixed identity within standardized public spaces, the subject could always be observed and controlled.

While Haussmann's Parisian program alienated the poor and displaced communities from the core locations of interaction and transaction, new kinds of spaces, were created during the 'revitalization' to fulfill the need for inevitable interrelations within the public sphere. 'While opening up the enclosed spaces of the city, [Huassmannization] simultaneously created new urban interiors elsewhere: sidewalks, kiosks, public lavatories.' *26 These are the interstices of public space where intimate social contact can happen inside of the programmatic patterns of an efficiently ordered city: people fall into contact with one another in unplanned encounters.

Much like the designated city plan driven by the upholding of wealth-based power structures, the fixed spectrum exist as a form of exclusion of independent voices. As wireless communications emerged and encompassed the landscape in wide-spread connective possibilities, an ordering structure was required to regulate interference in this new geography of the electromagnetic spectrum. It is the degree and standard for regulation that are the foundation of micro radio dispute.

And in the case of unlicensed radio, the inevitable resolve to counteract boundaries fuels the various resourceful inventions for working around limitation. Vehicles, rooftops, islands, stealth radio operation technology, ship-to-shore
transmission: these are the early methods of the radio nomad driven from the urban centers of the spectrum.

These interconnections represent the positioning of micro-radio in the larger context of consolidated corporate ownership of media. The figure of the rogue broadcaster has come to redefine itself over time as leverage against the flattening force of commercial imperatives.

This is relevant as a responsive measure to changing conditions of boundlessness in urban space: the response to heavily regulated states that aspire to seamlessness and the individuals that they will produce. Urbanists and sociologists seem to be articulating the same ideas that apply to the cartography of allocations. "One of the big issues in urban life is how to make the complexities that a city contains interact ... we need to overlay different activities in the same space, as family activity once overlay working space."27

With the invention of spatial typologies in radio, distinctions were simultaneously created and blurred: The enforced limitations that exist in the areas of the 'public trust' represent the ambiguity of what is termed public space, governed for the welfare of the individual: the 'trust' increasingly is in the hands of private organizations whose objectives are profit-centered. The reversal of this position: expanding or blurring the borders of a given typology within the spectrum of allocated frequency allows for a momentary critical fracture; sub-visible, yet spatial.
Project M49

The title refers to a concept characteristic of the modernist project advanced by Le Corbusier. Corbusier described the conditions of a home reduced to its purest function as a 'machine for living'; a design for the subject in a world of rational architecture towards standardization. The motivations for the vehicle I am referring to as the M49 critically regard such standardization; M49 is a rescue vehicle operating a feedback loop as a model for sensitive responsiveness to a dynamic environment. The M49 performance employs a resistant force of radio interference. The performance, as it is inserted into the semi-public commercial space of FM radio, is an incidentally received 'augmentation' of intended programming. Behaving conceptually consistent with constructive interference properties, the embellished broadcast introduces information, traveling in the same ethereal state of radio waves, from ordinarily separated bands of the radio spectrum. In this undifferentiated re-production of multiple frequencies, the result displays a hectic dialogical disturbance: it is a method for engaging and resisting the 'one-directional flow' of information by absorbing, incorporating and then redefining the expected use of both the medium, and its content in the absence of the 'separatrix' of the radio spectrum.

I also refer to the medium of radio that has imbedded in its history a live-ness, which can be characterized by the qualities of disembodiment in a spatial manner specific to radio. The disembodiment arises from the inherent dislocation of a voice or sound from its broadcast origin, and the propagation of this sonic element into surrounding atmosphere to be picked up by unspecified receivers. 'To disembody means to divest of the body, of corporeal existence. In order to be a disembodiment, one has to have been once encased in the body; one has to have emerged from some original carnality to which one may or may not be reunited... Radio is the exemplary playground of the disembodied voice.'

The signal temporarily de-centered by the M49 is resituated by interference into newly structured terms. Imbedded inside of the dominant FM signal, the performer (The Argonaut) projects his voice into this structure. Language, pre-existing meaning, is therefore purely energized; formative to the developments of the structure as it is
produced. The Argonaut traffics in, and inhabits the physicality of language, revealing a displacement of the forces behind the institution of influencing media. M49 builds recombinations out of the ruins of communication breakdown.

The Corbusian machinic home, when applied to the contemporary context of interconnectivity, becomes a porous receiver: shared ‘public’ space is integrated into the terms of functional domestic lifestyles and economies, -a process begun with the advent of early electronic communications, expanding with early radio broadcast history, and accelerated in development through the digital hybrid of language, sound and image. The populace collectively takes on certain ethos resulting from connectivity to the moment. ‘The ether is an abstract ‘Everywhere’. *34

The M49 interference lab is a mobile staging ground for conducting a series of transmission-based performances. It is an architecture un-tethered. A low-profile mobile radio activities lab discreetly permeates the public, cloaked as a generic utility vehicle, and extending through the free passage of electromagnetic radiation. The Argonaut, Argot,*35 the performer of language and communication manipulations, becomes a co-presence within the radio spectrum. As I will later elaborate upon, Argot will be the primary character in the M49 radio play, representing a transition of the subject into pure spoken language, cloaked in the codex of communication jargon.
Analog radio is an inherently insecure communications medium. M49 sets up conditions in which the staged event collides with the everyday reality of an unprotected context in order to arrive at a surprising and extra-perceptual territory. The 'unprotected' context(s) that I refer to are both the radio spectrum, allegedly held in the public trust, and publicly encountered physical space. '...All that radio is, is making available to your ears what was already in the air...in other words, all it is, is making audible something which you're already in. Your bathed in radio waves'36

As the material shroud of Argot, utilitarian forms and appearances have been taken on as the paraphernalia and uniform of the agency, M49. M49 uses the motifs of a legitimate municipality, working publicly, yet clandestinely as a mode if intervention. M49 performances are experienced as incidental encounters, as one passes through an interfering, un-licensed broadcast. The performances intervene with anticipated programming. The framing device disintegrates. –Leaving only the legitimacy of established programming to carry the blended signal interruption.

The mobile studio serves as an apparatus for conducting public works projects that make use of a low power transmitter and other tools for defining temporary
occupations. The vehicle itself counter-acts the phenomenon of staying still as the constructed environment mobilizes around us.

The dual cartographies of constructed space and communication space impact one another. When the M49 begins its broadcast, structural space merges with ethereal space to reveal an intersection of the material and immaterial infrastructures of the city. Eroding the bounds of the built environment through wireless transmission allows the partitioned or hidden to extend into that which is publicly experienced. The M49 performances will be a multilateral set of infiltrations of the permeable radio spectrum, and will then exist as a subsequent log of the incident as seen through the performance of a radio play.

The M49 project exploits modes of order and distribution, locating the material and conceptual gaps that emerge from within these organizational systems. Studio mobility and interference into the radio spectrum are the methods of operating directly in sites of interest. The strategy of the M49 project has been to temporarily repurpose or 'de-territorialize' architectural sites to evoke new or previously concealed meanings.

My performances, as momentary disruptions, leave no physical imprint*37 and are intended as subtle, incidentally encountered micro-events. The M49 video as a performance artifact utilizes formal modes of representation to re-articulate the event as a secondary project*37. The performances have been enacted at a number of different locations: video becomes a way of serially gathering this mode of work into a loose narrative that impresses this process onto a larger scale of varying terrain.
There are always barriers through which leaky media seep into physical reality, calling into question the line between the nature of self and the technology of culture, where we are confronted with engineered fiction and its results outside of the terms of its own invented framework. Adbusters, arthouse pornographers, Warholian propagandists, subversive shoplifters, activist anti-poets, cryptic runaway circuit-benders contribute entertaining cultural gestures to be consumed, but cannot contend with the radical adventurism of arms traders. Liberating technologies; smooth byproducts of the arsenal of military and law enforcement might, -these provide ambience for the development of separatist pockets of a larger mirage. Infinite space opens up infinite possibilities of re-forming and boundless territory, thus reinforcing one's psychic distance and de-sensitivity to the immediate environment. The individual moves towards remoteness and alienation from the devolving social and spatial conditions in which they are suspended, -the unnecessary, the non-participatory, the poetical, the sleepy, the unpredictable, the useless are the new, crucial mad. Strategies of psycho-geographic insistence have been absorbed as tools of marketing to acute demographics, but the element of surprise and accidental encounter are valuable strategies to be employed by the unauthorized public artist.

The territories dominated by private communications and commercial distribution of information and entertainment, are thriving sites in which to intervene because of the ability for the radio spectrum to be both 'observed' (heard) and defined (regulated) into taxonomies of use, and also because of perceptually elusive conditions due in part to what cultural theorist Rudolph Arnheim referred to as an hierarchy of the senses that privileges seeing over hearing.*38.
M49, Interference Structure

[Image]

"...we might reinterpret Matta-Clark's cuttings in a new mode: not so much destructive, or deconstructive, in relation to architecture but constructive of an architecture that (finally) would embody the modernist spatial promise in a way denied by the systematic vulgarizations of modernity built by corporate efficiency...and developed as material interventions on the structures themselves" *39

_Differences; Topographies of Contemporary Architecture_ - Anthony Vidler

*Principles of chance and juxtaposition generate interference and clashes between systems...The inherent purity of the geometrical system evokes a feeling of rational control and stability. If things turn out differently, then, and the juxtaposition of several "pure" systems gives way to impurity, the geometric system's rational control over that which "ought to have remained secret", weakens. The repressed leaves its enclosed habitat and thus provokes in us an uncanny feeling." *40

_The Uncanny and the Architecture of Deconstruction_ - Bart Van der Straeten
**Layers: Method and Itinerary**

My primary performance site is the M49. The M49 is a former emergency equipment utility vehicle, retrofit as a studio-in-transit (another sort of emergency equipment utility vehicle). The project first involved renovating and accessorizing the mobile work-station. The secondary site is the electromagnetic space of radio broadcast, and its broad conveyance of information. Thirdly, the truck is situated at the central point of building 46, The McGovern Center for Brain Research, for its first performance. Beyond these concentric circles, are the incidentally pervaded areas of unpredictable radio reception in the City of Cambridge by those that are listening to the frequency of the broadcast. The live performance is not encountered under the traditional terms and dynamics of live entertainment, nor is it encountered in the protective framing mechanism of the exhibition. The broadcast involves several sound inputs originating from live sound and from several different bands of the radio spectrum. There is a structure defined by the performance of the project that occurs in the interior location of the vehicle, and the dual exteriors of the visible surroundings, and the outer electromagnetic field of the broadcast. (The performance is eventually conveyed as a split-screen, single channel video projection). During the performance, the interferent signal breaks through the obstructions of classified bands, connecting areas of communication ordinarily kept separate by license privileges. The broadcast is a de-territorialization of the organized radio spectrum, finding systematic correspondences in the converging content.

Listeners to the frequency, 96.9MHz, will hear exactly what is captured from the broadcast performance: The establishment of an interrupted signal, and then four additional layers of interferent radio material are unified into the one. The opposing realities of live programming are represented as layered constructs. The camera is passive as it inventories sound and image.
Procedure: An Instruction Manual for the M49 radio play

I) FM in; interferent FM out.

National Public Radio occupies the powerful commercial signal of CNN.

M49 arrives at the site, Building 46. The operator parks, and enters the work area to begin. This is the entrance of the protagonist, Argot.

The first sound-layer transmitted in the project is an FM signal. I have chosen to re-transmit a program broadcast by CNN radio on FM 96.9 MHz because it is a powerful signal, and it is broadcast nationally. This sets up a frequency as a material to contend with by interference in the site of the FM band as a publicly accessible site in the radio spectrum. The program, the Laura Ingraham show, exemplifies a type of viewpoint that will be contrasted by the following interjected talk radio program.

'The design of structures appears when content is neutralized. Content is living energy and meaning.' *41 The accidental collision of communications through generating radio
interference draws out moments of interrelational clarity. (Variations of the performance were conducted several times. Each time, though the timing and the 'found' material differed from day to day, a similar meaning could always be interpreted, and similar, relevant narratives were manifest.)

Although the specifics of the conversation have an unpredictable quality within my performance (as each component is part of live transmission/retransmission), it is predictable in that it represents a dominant, incumbent position of broad national territory. Like the scaled layers of a nesting doll, my overall broadcast takes place at a site-within-a-site at the beginning of my procedural process of increasingly smaller, more localized bandwidth; eventually arriving at a core site of my presence in ethereal radio space, as well as the physical presence of the M49 positioned in the center of the footprint of building 46.

The second stage of the performance is the beginning of my interferent architecture based on the reception of a second FM signal. This signal is received from a broadcast by National Public Radio. The program is dichotomous to CNN in that it is also a talk show, where the discussion tends towards a critique of the same current events, but in a contrasting viewpoint. The program originates elsewhere, and becomes invasive, as it inhabits the licensed signal on this frequency. The outside signal moves to the center of the performance site, and becomes imbedded as a second retransmission originating from the M49. Again, the exact material is unpredictable, but tends towards a contrasting political position on the same topics as the first signal. Now there is a loop formed by receiving a signal, modifying the information, and retransmitting it. This causes a displacement of the forces of the CNN signal.
2) UHF in; interferent FM out (UHF ‘police band’ transmissions are redirected as FM interference).

These transmissions serve as unpredictable, 'live' material, which causes ruptures or 'openings' in the FM signal. Broadcast radio, in its inherent fear of 'dead air' is an incessant, uninterrupted signal, which attempts to close all gaps, fearing the possibilities that lie within them. Also, in the heightened state of FM commerciality, an efficiency of delivery is imperative. The result is breathless.

Once the interferent signal begins, the next layer is added into the broadcast. This layer, received by 'police band' radio scanner, pulls in much more unpredictable, yet clinical content, resulting from mobile communications between police officers and their radio dispatch. The content of these communications is dependent upon the ever-changing activities around the immediate vicinity in the City of Cambridge.

In my experience of operating as police radio dispatch and unveiling an armature for the maintaining of day-to-day activity, under-seen activities for regulating a system
emerged*42. Dispatch is a centralized intelligence source connecting ‘traveling nodes’ for communication at unfixed points. The centrality is also a substation; an outlying regional ‘sensor’ which draws from larger city, state, federal databases, and feeds back information to grow data with the intention to progressively ease management. Armed to react against crisis, the police force, among others, operates in anticipation of failure in the social system. (Amateur radio operators build skills that anticipate possible inability to maintain the system in times of failure). Dispatch relays tactical information to officers moving throughout the city in their vehicles. The officers communicate their responses as they encounter various urgent events.

The communications in this band efficiently utilize a language amalgamation of codes, alphanumeric jargon, the phonetic alphabet, geographic reference points and subject descriptions. Their dialogue deals with the orientation of patrol officers in the city and the subject of their inquiry in time and place. Their actions are constantly noted in military time, and logged by dispatch in the form of recorded incident reports. The jumping of different bands into commercially received signals has an uncanny effect as we are exposed to information inappropriate to its ‘new’ context.

3) **Westone Thunder III electric guitar feedback in:**

*output as an additional layer or sub-current in the carrier signal on the FM band.*

‘Through continual bricolage and displacement of radiophonic signification, even though the dictates of commerce and security have warranted the institution of a new ethereal logos and the creation of ethereal property, the radio artist may choose to reinstate noise as the primal condition of communication.’ *43 -Milutis, Ether*
This next phase of the performance is the establishment of a feedback loop, which will be the carrier signal for Argot's transposition. Within this carrier signal is a symbolic fusion of the performer's physical presence into the 'space' of the transmission. Feedback is created on a Westone, Thunder III electric guitar, using the ultimate trope of the rock-and-roll transgression of music. Feedback is a trope of subversion to structure and harmonic progression, and a contention to the music ordinarily made available by commercial radio programming. The feedback is achieved by acoustic properties, based on the physical relationship of the guitar's electric pick-up to the placement of the amp: Therefore, as opposed to the direct inputs of the radio signals, the feedback is played live into microphone, and is extremely loud in the M49 lab. At this point, the Argonaut puts on ear protection. The performance takes on a degree of physicality beyond the broadcast. The feedback is then mixed down, so as not to drown out all of the other sonic information, becoming a wave of sound washing through the communications space of broadcast radio. The feedback saturates the communication zone, doubling in imitation as it is retransmitted into the broadcast loop.

Once these layers have been established, the Argonaut begins preparations for departure into the space of coverage within the broadcast contours of the low-power,
10-Watt transmission. The feedback loop is set up and then activated by the Argonaut. His departure from the transceiver redefines spatial parameters by absorbing components of the larger audio ecosystem and merging this material with the internally generated voice disembodiment. This is an echo of the control mechanism in the symbolic site of the brain (building 46, where the M49 is now parked). It is an emulation of the proprioceptive process.

"The feedback loop works like this: The social body (all of us), most of the time barely notices the material and institutional constraints that architectural space places on it...the social body, taking care of its daily business, barely notices these material and institutional constraints. Yet, when it does take notice, it typically begins to question what it is our architectural configurations (whether object buildings or land-use patterns, etc.) signify about us. It then begins to imagine new configurations (symbolic, formal, and spatial). These new architectures, by placing new constraints on our activities, produce, yet again, new social configurations which, then, acquire new significations which, in turn, are questioned anew, and so on, and so on. It seems that it is this critical looping that propels us onward in creative change and makes for what we call the history of architecture among other histories, sociological and otherwise...it is the inextricability of this relationship between the material world - architecture - and our self-identity within it."
4) The voice of the Argonaut via FRS ('Family Radio Service' which is extremely low power and does not require a license); input to mic., FM interferent (voice) broadcast.

The voice of the Argonaut is assimilated through the use of police dispatch jargon, the argot of urgent response, protean in its recombined relevance in a de-contextualized state. However, the Argonaut is mediated by additional layers of protective wear (The 'First Responder' toxic-area training suit). -Like voice modulated with electricity traveling as an electromagnetic current (FM: frequency modulation), the Argonaut travels with artificial layers of protective skin into the feedback loop, a sensory experience in a contaminated territory. He travels within the carrier wave being propagated. ‘For us, the reality is rather the result of the intersection and ‘contamination’ of a multiplicity of images, interpretations and reconstructions circulated by the media in competition with one another and without any ‘central’ coordination. *46

When the Argonaut exits the vehicle, his voice loops back to the lab by two-way radio, then re-transmits as an additional loop (also in the primary FM signal). When exiting, The Argonaut makes a disappearing act within the feedback loop. His voice travels into the amalgam of other disembodied voices, all intersecting one another.
There are no longer any partitions to separate these sources. It is an inverted Babel of standardized language: spoken words in communication space de-contextualized from their place of meaning.

Preparations for departure involve outfitting of the Argonaut in the protective skin of the hazardous waste suit, a respirator, eye protection and ear cover. This gear, sartorial of emergency caution, enables The Argonaut to move into the atmosphere being impacted by the interferent signal. This action is part of the performative blurring of boundaries between physical ‘reality’ and the live-ness of representation. The exterior is a zone of contamination; the conflicts in the atmosphere are conjured through the reception of transmitted waves.

'The cultural process, as the supra-natural growth of the energies of things, is the manifestation or embodiment of the identical growth of our energies. The borderline at which the development of specific life-content passes from its natural form into its cultural form is indistinct and is subject to controversy.'*47 -George Simmel

Jay Severin: Well, yeah, I'm pretty much down with Pat on this, but I-I think where they've got it wrong is building a border fence...
Brain Building (46)

‘Even your body has a biological radio set, which can be triggered by a seizure of the temporal lobe. Radio knows no boundaries: its signal is as unavoidable as it is unstoppable.’

\[48\]

‘To consider radio as part of the shift towards the posthuman, plunges us into a debate over the relations between human beings and technology. If we see the wireless as implicated in the production of a posthuman subject, we must rethink radio, seeing it no longer as a quaint, nearly obsolete technology but instead as the leading edge of later developments in cybernetics. Alternatively, if we hold on to our awareness of the nineteenth-century roots of wireless technology, we will find ourselves rethinking our understanding of the term ‘post-human. We may understand the ‘posthuman’ not as a new type of being, part human and part informational circuit, but as a new perspective on the complex and enmeshed relations that human beings have always had to the technologies we develop.’

\[49\]

The M49 broadcasts have occurred at a number of locations. The origin of broadcast for the initial M49 radio play, The Argonaut, was located at The McGovern Institute for Brain Research, Building 46. The ‘Brain Building’ features a pass-through maintenance driveway, and railway, which interests me in that the building has allowed a vector of transit to bisect the footprint of the architecture. The building was designed to conform to this precondition. The pass-through allows for the M49 to be located directly in the center of the underside of the building. Building 46 was recently completed. It has additional symbolic, locational relevance in that it is positioned in what
the avant-garde referred to as 'zero time'; a newly situated beginning for temporal and spatial advancement. It is a central axis point apt for the timeless and semi-spatial characteristics of non-linearity that occur when the interfering architecture of the M49 broadcast begins.

The McGovern Center is the home to one of MIT's cybernetic, AI research robots. One of the principals behind this robot as a 'life form' approximating an autonomous being, is that artificial intelligence requires an embodiment much like the architecture of human anatomy in order to retain characteristics of proprioception, which is a sense that provides feedback to the brain solely on the internal status of the body: The body is a housing for experientially gathered intelligence.

This research principal emphasizes the fact that true intelligence involves the ability to function in a real-world environment. The model for M49's interfering 'feedback structure' will be a symbolic representation of this principal as an evocation of a sub-visible architectural form. The Argonaut character interfaces his environment through sensitivity to its terms. Embedded within the medium of radio throughout broadcast history is the spectral theme of the disembodied voice. Voice (sound, data, etc) is disconnected from its source, traveling into remote and unspecified locations mixing with all other dematerialized signals.

Feedback loops can be defined as the flow of information back to the origin of a system. A feedback loop is a circular, causal process: Information leaves a system, and is returned as an input to the system. Newly added information into the loop is part of the process of adjustment towards system stability: In cybernetics and control theory,
feedback is a process whereby the output signal of a system is fed back as an input in order to control the dynamic behavior of the system. Ludwig Bertalanffy, a founder of Systems Theory, was focused on how feedback acts to regulate a system. He considered the mechanism of feedback to be a ‘universal construct of all systems, including those electronic, mechanical and emotional… he reformulated the classical concept of the system and determined it as a category by which we know the relations between objects and phenomena.’

For the performance, M49 is oriented in the center of the symbolic brain (Building 46). The Argonaut sends messages back to his control center/transceiver (the vehicle) from the field; an atmosphere contaminated by a desegregation of the spectrum. The Argonaut encourages the dissolution of boundaries among this communication space, and then enters into this de-partitioned zone to become a disembodiment engaged purely as language traveling as feedback. ‘In radio, not only is the voice separated from the body, and not only does it return to the speaker in a disembodied presence, -it is furthermore thrust into the public arena to mix its sonic destiny with other voices.’

Here he responds empathetically (in the urgent lingo of police radio) to a cultural ethos of crisis and disintegration. This condition is produced by a fusion of events reportage, combined with an exploitation of ones sensitivity to the ‘publicity’ of the events through the marketplace of media absorption (the repeated themes of alien invasion; technological, geographical, cultural, are drawn from live news sources and echoed by the intervention itself). In the tradition of rapid, mass dissemination of information beginning with broadcast radio, the psychic malleability of geography, combined with the semi-conscious digestion of information, contributes to disappearing boundaries between interior and exterior spatial constructs.

Historically, invisible technologies as behavioral influencing machines have generally produced cultural paranoia. The Argonaut serves as an agent to unveil these lesser-seen operations: He probes ‘neural’ signals rife within the environment to magnify less visible properties of the (social) body. He performs a theatrical emulation of intelligent brain transmission, and in turn, sensorial feedback. The theater is performed through the utilization of bodily presence within analog radio circuitry in order to reveal a techtonic mechanism behind the elusive properties of disappearing technologies as
they become integrated with the human body, its intelligence system, and in turn the extension into larger social networks.

The Argonaut insulates himself for entry into the immediate outer space with layers of protective material. He becomes a disembodied voice, captured by receiving feedback and recording the activities from within the ecosystem of radio signals always active in the spectrum. The Argonaut makes a disappearing act allowing him to move indiscernibly within the carrier signals, enacting a theater of proprioception. In the M49, radio communications are received like input to a nervous system. Proprioception is a responsive process of rapid, automatic modifications made in the body as a result of sensory signals sent from encounters with changing external conditions. It is a sensory feedback mechanism that is the basis for the constant orienting of oneself through stability and balance. The subject of the dialogue between the Argonaut and M49 is the search for a missing body. The Argonaut modifies his script as he encounters unknown incoming transmissions. The Argonaut's process engages with the outer environment in the manner of a sensory-response system for dealing with stimuli. When he exits the vehicle, he is in contact with the M49, and his transmissions are then looped back as a broadcast, building upon the other established inputs. He hears these inputs, and makes adaptations to his script based on the material he is receiving.

The Argonaut emulates the nature of the feedback loop investigated in research on the self-aware, corporeal identity of Artificially Intelligent Beings (semi-humanoid robots). The concept of proprioception is translated as the performance of the Argonaut accessing multiple communications as an RF transmission; the subject becomes disembodied, and is sent out with the feedback loop inside the carrier signal. He encounters cross-sectional communication space, and wirelessly sends feedback. Initially there is confusion, after which he acclimates: In the transcript of the drama, 'There are no communications', becomes, 'There are no communications barriers'.

He then returns as a re-embodied being. During this process however, the Argonaut is not visible to the exterior view. He is in a charged field, where all is data in transit. He is responsible for inciting the overlaps and correspondences of radio communications through his eliminating of the boundaries that organize the spectrum. He has simultaneously resisted and included the presence of his mediascape.
M49 Radioplay Script: A Fictional Truth

Part I.
Establishment of the Performance Arena: CNN 96.9MHz
In Part I, talk-show host, Laura Ingraham discusses Chinese domestic policy, becomes indignant about invasive technologies, and a van is invoked.

M49 Enters on left screen (exterior), Argot enters right (interior).

Laura Ingraham: Christian groups are trying to r-raise awareness about the, you know, tormenting of, of, people with a religio- you know religious background in China?...now Stoll was next seen talking to China's Vice Minister of Famil-family Planning, now does that sound evil?...Vice Minister, well, vice.

Laura Ingraham: Stoll showed her, -this woman, pictures of women who were actually using ultrasounds to find out about the sex of their own babies, and then, put a great question to this government official:

This Woman: Did you see this story?

Unknown Responder: Unh-huh.

This Woman: I took this off the internet.

Unknown Responder: Um-hm

This Woman: This was a van...we show...
Part II.

Jumpered NPR Establishes a Position on FM 96.9:
A Geographic and Socio-Political Segue from China to Los Angeles.

A visit by China’s President Hu Jintao, First Amendment rights, and coverage of the upcoming (May 1st) worker boycott by immigrant laborers, eventually arriving at a reference to CNN program host Lou Dobbs on immigrant laborers. Feedback from the Thunder III is input into the interferent signal. Simultaneously, local Police Radio transmissions are redirected into the FM band as unpredictable incisions of local communication. Two-way communications in the immediate vicinity begin between Argot and M-49 Dispatch. The Spectrum merges with Geography.

Corey Flintoff: …boycott on May first.

Melissa Block: Remembering legendary test pilot, Scott Crossfield who crashed to his death at the age of eighty-four.

Corey Flintoff: And inspecting the papers of the late columnist Jack Anderson.

Jack Anderson: A number of them, uh, want to make this uh, a show- down at high noon. Between um the big bad FBI and the first amendment and a free press…it has very little to do with that.

Melissa Block: And these stories: A glitch at the social-security administration over deducting for the Medicare prescription drug plan.

Cambridge Dispatch: …6…any description of those kids?

Corey Flintoff: And the FCC says its looking into payola.

Melissa Block: Now news.

Cambridge Patrol: (unintelligible)...uh...a red shirt.

Corey Flintoff: From NPR news in Washington, I’m Corey Flintoff. President Bush welcomed China’s president Hu Jintao for his first ever White House visit this morning. The ceremony was interrupted by a heckler angry about religious persecution in China. NPR’s Don Gonyea reports from the White House.

(Thunder III begins feedback)

Don Gonyea: It was a picture-perfect morning on the south lawn. Sunshine, military bands, Chinese and American flags everywhere. President Bush made remarks that were welcoming but also calling for...

Corey Flintoff: We’ll try to bring you the rest of that report in just a moment.
Corey Flintoff: Government attorneys in the trial of Zacharias Moussaoui have agreed to a statement that says there's no evidence that would-be shoe-bomber Richard Reed was supposed to participate in the 911 attacks. Moussaoui claimed on the stand that he and Reed were to fly a plane into the White house on 911.

Cambridge Dispatch: 2-6, go ahead.

Corey Flintoff: NPR's Larry Abramson reports.

Larry Abramson: The government signed onto a stipulation put forward by defense attorneys. It cites information from the FBI showing that Richard Reed made Moussaoui the beneficiary of his will.

Cambridge Dispatch: (unintelligible)...10-3 now.

Larry Abramson: The FBI believes that Reed would never have done that if the two were meant to take part in the same suicide mission.

Cambridge Patrol: control 54 number one.

Larry Abramson: The statement also notes that intelligence from Al Qaida indicates Reed was supposed to take part.

Cambridge Patrol: (unintelligible)...eleven.

Larry Abramson: in additional terror attacks in the US after 911.

Cambridge Dispatch: AD5...(unintelligible).

Larry Abramson: And the statement points out

Cambridge Patrol: 10-4.

Larry Abramson: that Reed was traveling abroad prior to 911 -the other hijackers were all in place in the US well before the attacks. The stipulation is meant to bolster the defense contention that Moussaoui has exaggerated his role in 911...

Cambridge Patrol: Go ahead.

Larry Abramson: ...and that his limited participation...
Cambridge Patrol: (unintelligible)

Larry Abramson: ...should save him from the death penalty. Larry Abramson, NPR news, Alexandria, Virginia.

Cambridge Patrol: (unintelligible)

Cambridge Dispatch: (unintelligible)...alright.

Corey Flintoff: To conclude our first story, President Bush met today with Chinese president Hu Jintao. During President Hu's speech, a Chinese woman interrupted, screaming demands that China stop persecuting members of the Falun Gong Meditation Movement, which is banned in China. She got access to the event using press credentials that were issued to a Falun Gong newspaper. She was removed by secret service officers after several minutes.

(Argot signals from exterior)

Corey Flintoff: More airlines announced fare increases today to match a ten-dollar round-trip increase posted yesterday by American Airlines. The fare supplie...applies to domestic flights and its been matched by Continental, Delta, Northwest, United and US Airways, among others. Airlines say they've been hit hardest by soaring prices for jet-fuel, which came as the financial picture was beginning to look bitter for some of them. Analysts say the latest fare-increase is the fifth for the major airlines since the start of this year.

Corey Flintoff: Oil prices fell slightly today after briefly rising to a new record...

Argot: One zero echo one.

Corey Flintoff: ...high above seventy-four dollars a barrel...

Argot: Echo one.

Corey Flintoff: ...in London trading. Prices on the New York mercantile exchange closed at just under seventy-two dollars.

Argot: Go ahead 49.

Corey Flintoff: In stocks today the DOW gained sixty-four points to close at...

Argot: Control, I'm activating a 10-28 on a 10-103. Please stand by.

Corey Flintoff: ...eleven thousand-th-three forty-two in active trading. The Nasdaq lost eight points to close at twenty-three-sixty-two. This is NPR news.
M49 Dispatch: Received. 10-28 standing by 10-2. Over.

Cambridge Patrol: Come again?

Ken Vorhees: This 89.9 KCRW Santa Monica. I'm Ken Vorhees.

Cambridge Dispatch: (unintelligible)... 2-9.

Ken Vorhees: A plan to build a public golf course on the Palace Verdes landfill in Rolling Hills Estates was abandoned...

Argot: This looks like impossible...

Ken Vorhees: ...today because escalating construction costs would have made a round of golf too expensive. Meritage Rolling Hills Golf, a development company and the Los Angeles County Department of Parks and Recreation...

M49: Responder, do we have a location?

Ken Vorhees: ...agreed to forego plans to build the eighteen hole course.

Argot: Affirmative, I'm right here.

Ken Vorhees: -A move first recorded by the Daily Breeze. Had the South Coast County golf course been built, a round of golf reportedly would have cost between two hundred and three hundred dollars.

M49 Dispatch: Can we have some specifics on that?

Cambridge Dispatch: Negative, I've done that...

Ken Vorhees: And old rail yard in an industrial area of Gliselle park near the...

Argot: (unintelligible) ...the ether from your body...

Ken Vorhees: ...LA river's being turned into a state park. -Scheduled to open next month, a forty-acre

Argot: I mean...I'm right here.

Ken Vorhees: Rio De Los Angeles state park will have facilities for tennis...

M49: ...your body from the ether.

Ken Vorhees: ...basketball, softball, baseball...
Argot: Can you run a check on this? Building 46, uh... 112 Main street?

Ken Vorhees: ...and soccer. –Along with an outdoor amphitheater, and a natural habitat area for wildlife.

M49: Received, 14:40, 112 Main...your in a brain.

Ken Vorhees: It's the first phase of the Los Angeles river revitalization master plan. Which calls for spending hundreds of millions of dollars over the next thirty years to restore most of the thirty-two mile concrete-lined waterway to its natural state.

M49: Be advised that the subject is out of restraints and has stated that he has lost...

Ken Vorhees: A seventy-year-old retired painter...

Argot: Echo one.

Ken Vorhees: ...has been convicted of using a camcorder to make a pirated copy of...

Cambridge Patrol: Zero Obstructions.

Ken Vorhees: ‘The Legend of Zoro’ in a Southland movie theater.

M49: Zero Obstructions.

Ken Vorhees: Manuel Sandoval was caught by theater employees during

Argot: 10-68, can you run a check on this cargo?

Ken Vorhees: a matinee showing of the film when it opened October twenty-eighth. When they searched the bag...

Cambridge Patrol: (unintelligible)...right now, we'll get back to you.

M49: Go ahead Argot.

Ken Vorhees: ...that concealed the camera they found tapes of pirated copies of Tim Burton's, ‘Corpse Bride’ and ‘Monsters Inc.’ Sandoval faces up to three years in prison when he's sentenced July third.

Argot: ...one it's a red...

Argot: ...it's red...
Ken Vorhees: Well this time it was Vanna White's turn to spell out a name, -her own.

M49: No shit.

Ken Vorhees: A long-time letter-turner on Wheel of Fortune was all smiles today as she received a

Argot: I mean, roger. There is no body here.


Argot: Echo One…?

Ken Vorhees: The forty-nine-year-old White debuted as host Pat Sejak's…

Argot: …echo…


Argot: …one.

Ken Vorhees: The time is 6:06. All Things Considered continues on 89.9 KCRW.

M49: Echo-one.

Ken Vorhees: NPR news for southern California including Thousand Oaks for the Caneo Valley at 102.3.

Argot: Roger that, the physical object has broken down to its original component parts. -relocated by transmission to another location. Over.

Corey Flittoff: The NPR shop invites you to take NPR with you wherever you go this spring.

M49: 10-38 I’m not picking you up, over.

Corey Flittoff: High quality portable radios and headphones are available now at NPR.org.

Distinguished Gentleman: Jean Pierre Melville’s celebrated French crime films, 'Le Samara'…

M49: What the fuck are you talking about?
Distinguished Gentleman: ...and ‘Le Cirque Rouge’ are shown regularly in the states.

Argot: 49, I'll proceed and standby.

Distinguished Gentleman: ...Now, ‘Army of Shadows’, Melvilles’s somber but brilliant account of resistance...

Argot: ...officer needs back-up...

Distinguished Gentleman: ...fighters during World War II has been restored and is making its US premier.

Cambridge Patrol: (unintelligible).

Cambridge Dispatch: Received.

Distinguished Gentleman: Matt’s Movies is thrilled to host a screening of ‘Army of Shadows’ on Wednesday the 26th

Argot: The victim states that there is no feeling in their body, over.

Distinguished Gentleman: ...for KCRW members. For information or reservations, call 310-314-4688.

M49: Negative, the body structures been modulated, -sent to a receiver as bits of information, over...-This involve a 10-54D?

Cambridge Patrol: (unintelligible)....I believe we have them under arrest.

M49: I don’t follow...there’s no body here, -nothing,

Melissa Block: From NPR News, this is All Things Considered. I’m Melissa Block.

Cambridge Patrol: (unintelligible).

Argot: The body has been transported by carrier signal. -The receiver has collected the data and reconstructed the signal back into the human form. Acknowledge.

M49: Copy that, proceed. 14:50.

Robert Segal: And I'm Robert Segal.
Robert Segal: The government has announced a major crackdown on companies that employ undocumented workers. In raids across the country, agents arrested more than eleven hundred illegal employees at Ifco Systems, a distributor of wooden pallets. They also…

Argot: Bravo Echo One.

Robert Segal: arrested seven officers…

Argot: Echo

Robert Segal: of the company.

Argot: Echo. Bravo.

Robert Segal: They’re charged with

Argot: Bravo Echo. Bravo

Argot: Bravo.

Robert Segal: conspiring to harbor and induce illegal aliens to reside in the US.

Argot: One.

Robert Segal: Homeland Security

Argot: Echo One.

Robert Segal: chief Michael Chertoff says the crackdown is part of a shift in strategy aimed at reversing widespread tolerance…

M49: We’re getting some feedback, there are no communications…

Robert Segal: …of the use of illegal foreign workers.

Argot: There are no communications…

Robert Segal: NPR’s Jennifer Ludin reports.

Jennifer Ludin: The case started with a tip…

M49: There are no communications barriers.

Jennifer Ludin: …from an employee at an Ifco site in Albany.
Argot: Victor alpha five, victor alpha five. This is a Code 22. We have an entanglement. -Experiencing dislocation...

Jennifer Ludin: According to the affidavit earlier this year an employee saw colleagues ripping up their W-2 forms.

Argot: ...There has been an attempt to....implement a quantum repeater.

Jennifer Ludin: He asked why, and says an assistant general manager told him the workers were illegal...

M49: Negative, there is no such thing yet, sir. 14:51 over.

Jennifer Ludin: so they wouldn’t be filing taxes anyway. As the investigation began, other disgruntled employees came forward. And the government had some under-cover help.

Argot: Sensorial information returning among feedback. Standby.

Jennifer Ludin: Agents hired an unlawful immigrant who’d been arrested by the border patrol and agreed to cooperate.

M49: Standing by 49, 14:54. Over

Jennifer Ludin: This person mingled with Ifco’s workers and secretly recorded conversations. Homeland Security secretary Michael Chertoff says this kind of action is aimed at the worst offenders.

Michael Chertoff: There are employers who knowingly or recklessly hire unauthorized workers, and they’ve actually built their business on being able to do that. Often because they know that those are the workers who can’t complain when they’re exploited or injured on the job.

Jennifer Ludin: Ifco Systems did not return phone calls, but in a statement the company says it’s cooperating with authorities. Julie Meyers heads immigration and customs enforcement. She says this is a major shift from what was tried in the 90’s.

Julie Meyers: We’ve learned all too well from watching the old INS, -that just a small fine or a slap on the wrist is not a deterrent to businesses who want to violate our worksite enforcement laws. The prospect of ten years in prison carries uh-much sharper teeth, uh than just a small fine.

Demetrios Papademetriou: I am encouraged in a certain way, highly, highly skeptical in another way.'
Jennifer Ludin: Demetrios Papademetriou is with the migration policy institute, and he's not holding his breath for a conviction of the Ifco officers. ‘Remember the Walmart case,’ he says, which settled. And before that a similar case against Tyson’s Poultry Processor, -they were acquitted.

Demetrios Papademetriou: Employers that are habitual if you will, -habitual breakers of the spirit of the law...

Cambridge Patrol: 82 to control.

Demetrios Papademetriou: …have enough to -in the legislation and the regulation themselves to descent themselves in all but the most extreme cases’

Cambridge Patrol: …warning, I’m at N7...

Jennifer Ludin: Don Benson is with Littler-Mendelsohn, a law firm that represents employers in labor cases, and Benson does indeed raise a series of issues that could poke holes in the government’s case. Still, he thinks raids like this do have an effect.

Don Benson: I think it is scaring employers. I think it’s a clear message to employers that you better pick up the phone and start calling your Congressional and Senate representatives because we need immigration reform badly.’

(level of Thunder III is raised)

Jennifer Ludin: Congress comes back from recess next week, with immigration measures still pending. A number of proposed changes would make sweeping raids like this one far easier to carry out.


Melissa Block: Some organizers of the recent immigrant rallies are having second thoughts about staging a national boycott on May first. Its been billed as a day when immigrants across the country would stay home. -The response to Congress’ tough talk on illegal immigration. But as NPR’s Mandalit Del Barco reports, many immigrant advocates now worry that a boycott will hurt their cause.

(shutdown Thunder III)

Mandalit Del Barco: Broadway avenue in downtown LA is brimming with immigrants working at factories and offices, shopping at cut-rate stores. This is where 18 year old Greg Pasqual flips burgers at Jack-in-the-box, but he plans to skip work on May 1st in honor of his Guatamalen parents. He says everyone else he works with will boycott too.

Greg Pasqual: Nobody’s going to work that day, nobody.
Mandalit Del Barco: What do you think the message will be if everybody didn’t go to work or didn’t go to school, and didn’t buy anything or sell anything that day?

Greg Pasqual: They won’t make no money. Only Hispanic people clean bathrooms, wash everything...I don’t think white people’re gonna’ clean the bathrooms.

Peter Camau: If they lose a couple of billions, they’re gonna’ realize how important immigrants are.’

Mandalit Del Barco: Peter Camau is a 25 year-old computer programmer who immigrated here from Kenya. He says he supports the concept, but he can’t afford to boycott work.

Peter Camau: Where I work, we are probably two, two Africans, and uh...all the rest are white, so I probably get fired, so I don’t want to do that so...

Mandalit Del Barco: Already workers in Chicago, Dallas and other cities report being fired for leaving work to participate in immigrant demonstrations. Officials are warning students not to be truants. State Senator Gloria Romero says that she understands that some may be afraid to give up a day of work or school.

Senator Gloria Romero: Largely, immigrants live in the shadows, so there are some very strong risks for them.

Mandalit Del Barco: But she says immigrants need to demonstrate their economic power and to influence lawmakers in Washington. Romero helped draft a resolution calling for the California Senate to recognize the boycott.

Senator Gloria Romero: What would it be like to have the richest nation on this earth one day stand up to say, ‘see if you can function without my participation.’

Mandalit Del Barco: Its improbable that the entire economy will come to a standstill on May 1”, but that’s exactly what happened in the satirical film, ‘A Day Without A Mexican’. The premise is that every Latino in California mysteriously disappears. Suddenly, there are no more nannies, gardeners, restaurant workers, housekeepers, no more Latino celebrities or Baseball players. Noone to pick the fruits and vegetables.

‘A Day Without A Mexican’: With noone in the fields, canneries, and meatpacking plants, the hunt for groceries has escalated.

Mandalit Del Barco: The film ends with Americans begging the Mexicans to come back to work. -Something the boycott organizers dream of. There’s also a strong fear that the boycott will backfire, making immigrants seem anti-American. The backlash is already apparent to anyone who watches CNN anchor Lou Dobbs, who recently read letters from his viewers.
Lou Dobbs: …and Devon in Missouri: ‘…the idea of a day without illegal immigrants on May 1st is a fabulous idea. I wonder what we can do to get them to extend it to a full year.’

Mandalit Del Barco: Even immigrant advocates are divided over the tactic of a national boycott. In LA for example union leaders community organizers and the Cardinal are asking immigrants to attend peaceful protests after work and school. During a press conference in LA yesterday, popular radio DJ Renan Anendades Quayo el Cucuijes da la Manana urged them to consider alternatives. He was translated by United Farm-workers Co-founder Dolores Huerta.

Renan Anendades Quayo: No Podemos a podaro voy cos…

Dolores Huerta: I personally cannot support any type of a strike because when we do have strikes, what they do is they create chaos.

Part III.
The Restoration of CNN
The right wing is righted: CNN is restored to their signal, reorienting the program with a sales proposition by the Neurocare Center for Research, followed by a discussion on the Imus/Sevarin program about how to keep immigrants out of the US.

Enthusiastic Salesman: Neurocare Center for Research is currently conducting a clinical research study for people aged 18 years or older, experiencing 'primary insomnia'…If you qualify, study-related medical care AND investigational 'study-drug' will be provided to you at no cost…Compensation for incidental cost and travel may also be provided…Call toll-free 1800-958-1218 to find out if you qualify to participate in this clinical research study for insomnia…Take action now! Call 1800-958-1218. That’s 1800-958-1218.

Don Imus: …Talking with Jay Severin, good morning Jay.

Jay Severin: Buen-Os Di-As ay Hom-Bre!

Announcer: IMUS. SEVERIN.

Don Imus: What is your solution to all this, -send 11 million of ‘em back or 20 million as Pat Buchanan says, or…

Jay Severin: Well, yeah I’m pretty much down with Pat on this, but I -I think where they’ve got it wrong is building a border fence…

Fade-out end.
Invasion

The theme of invasion is an inherent part of the history and the medium of radio. The most historically well-known invasion drama, H.G. Wells’ War of the Worlds radio play*54, functioned as a science fiction story deftly integrated with the day-to-day realities heard by radio listeners. The alien invasion was an echo of new cultural phobias about the technology of radio itself, -the phenomena of collapsing distances of geographic compression, and mass cultural absorption. In the M49 radio play, the theme of invasion-fear reoccurs, reinvestigating the relevance of this issue as technology becomes further internalized. The theme is both projected, and gathered from the existing sources that collide as the result of the redirection of broadcast frequencies. Laura Ingraham is appalled by a story of women using ultra-sounds to find out about the sex of their own babies. The update on the trial of accused 911 hijacker, Zacharias Moussaoui invokes powerful destruction caused by invading ‘cells of outsiders’. Jay Severin from CNN suggests building bigger border fences to prevent unlicensed immigrants from ‘unlawful entry’.

After CNN’s Laura Ingraham has presented her views regarding the visit of the Chinese Vice-Minister of Family Planning to the White House, NPR establishes a political as well as Hertzian position (on 96.9). The occupation of Corey Flintoff and Melissa Block allow them to present their allies including Don Gonyea, and Mendalit Del Barco. They present the news, and then focus on a few specific stories; talking first about Chinese domestic policy, and eventually Mendalit brings our attention to LA. Here the borders of the spectrum, as well as geographic borders are dissolved, and we are hearing a lively discussion on the upcoming May first immigrant workers strike. NPR offers some varying viewpoints (although it is clear what position we are receiving because of the program, and its dialogical contradiction to CNN’s Laura Ingraham).

It is nighttime, and in an aqueous green haze of acrid night-vision, we have seen the M49 arriving at its site inside of The McGovern Center. The operator, Argot, enters the laboratory and begins his surgical frequency interruption. After Cory Flintoff has established position, and the operator sets up a sub-current of feedback with the Thunder III, we also begin to hear the local authorities dispatch messages: They have
been diverted from their band, into our signal. They further indicate, in periodic bursts of transmission, the leveling of spatial order, even as they communicate cautionary measures while proceeding throughout the city. The police have become, even as a higher authority, trespassers.

At this point of the performance it is established, even with only a select few redirected signals (limited with the intention of clarity), that the area is woven by myriad waves of interrelated, traveling information. The Argonaut enters this environment in his second skin of protection. The outer space, external to the lab, is a noisy amorphous mass of controlled space and commerciality. Frequencies from different bands are drawn together to become the components of the Interference Architecture; a hybrid communication space in which the Argonaut asserts himself. FM commercial space contains the post-military ethereal residue of radio which permeates structures, turning them to ruin; the folly of martial grandeur. A distinct, if momentary view is rendered clearer in the absence of illusional boundaries: ‘...once the possibility of a state of emergency, in which the exception and the norm are temporally and spatially distinct, has fallen away, what becomes effective is the state of emergency in which we are living, and where we can no longer distinguish the rule.’ Argot’s layer of protection helps him negotiate the precarious balance of placement between invasion and connection.

Through the script, the Argonaut becomes distilled as language and voice (as he remains unseen), adapting to the terrain through small modifications according to the other coinciding voices. He is only observable when inside of the transceiver truck, manipulating the bands of the spectrum like a switchboard operator. He returns to reverse his process, restoring the artifices of adjacent compartmentalism. His intervention of the spectrum is another radio invasion, conjuring the themes hidden in the isolated ordinariness of the everyday.

The performance ends with the repatriation of CNN. By CNN, we are told that Neurocare Center for Research can cure our insomnia. A scriptural subtext formed by this ‘accidental’ dialectic is that insomnia induced by a cultural anxiety of the invasion of the outsider (the foreign, the unknown, -technology itself -here symbolized in the context created by the play as ‘The Unlawful Immigrant’) can be cured. We must construct a barrier wall with the help of ‘Neurocare’, the brains equivalent of the
border fence. Through analysis and treatment we can retaliate against the discomfiture of invasion.

The partition between falsely coexisting views has had a momentary fracture, allowing the respective dialogues to have bled together into new material to be interpreted. M49 concentrates on instituting the method for this collision to happen, and to catalyze the unpredictable results into a relevant reading. The M49 performance is disseminated through a medium that is generally used as a means of commercial distribution. Topical synchronous information is exposed to reveal a relevant interrelationship of ideas, and a symbolic narrative can be extracted.

Cognitive Dissonance was defined by Leon Festinger as the theory which "holds that contradicting cognitions serve as a driving force that compels the mind to acquire or invent new thoughts or beliefs, or to modify existing beliefs, so as to minimize the amount of dissonance (conflict) between cognitions." 56

The interferent architecture of radio invasion creates temporary occupations of space that make use of a still vulnerable communication technology. The medium of radio is an insecure, malleable system to be disassembled for consideration on the eve of its transition into the realms of digital technology, streamlined clarity and tightened management. Clearer sound and micromanagement of bandwidth will be a byproduct of tighter-regulated taxonomies of privatized, 'public' space.

The access of the Argonaut into RF topology is a symbolic gesture towards reversing the process by which technology's invasion of the space of the body is a feared inhabitation. Argot is an intrepid, protean figure conforming through his adaptations of language, but distinct in his hazardous atmosphere survival suit. The performance environment is suspended into a field of real time space, enjoining the fantastical actions of the Argonaut and the world as we receive it. The zone of interference is coexistent with outer conditions; postulating an interruptive or parallel presence, another state, both geographic and psychic. The interference zone is an analogous place in geographic transposition; at once built and unmade.

The fictional truth of the M49 screenplay is an inversion of live-ness. The full view of opposing values is only heard by the listener, and not by the contributing participants, whose words have a new power beyond intention. The provocation of
introducing these polarities is not tidy, and some voices are more clearly heard than others. The listener becomes an eavesdropper, a receiver of an accidental-dialectical encounter; at times producing noise, allowing voices to come forward and recede, to be interrupted, -living not as a fixed position, but an evolving transaction.

The play was performed on over a dozen occasions, yielding slightly different results each time, but conjuring always the same theme. The 'found material' of live broadcast as the primary element for dialogue is of course changing from day to day. The discussions have invariably formed a synthesis of views, winding around the same topics, insisting on separated vantage points, but becoming integrated, and demanding investigation. This synthesis produces a pool of information in which to either be submerged or to find meaning.
Installation M49: The Argonaut

The Installation of the M49 project consists of a subtitled video projection of the radio play performance, props, and graphical information. The installation is the debut of the Argonaut, a large-looming physical presence materialized from the program. The standing figure is commanding, yet inaccessible in the room, insulated by his suit and self-contained oxygen-tank pack. He is poised on a carpet that is emblazoned with a symbol that incorporates the caduceous, an antenna-ground symbol, autonomous electrical power symbol, and a symbol of fortification.

Beside him is a 'messenger bag' prototype: A custom-made soft-case shoulder bag that was designed to carry a low power radio transmitter, flashlight, battery pack, mixer, microphone and an additional audio source.

On the floor nearby, in demarcation of his area, is a blinking beacon to caution that this is a zone of construction. There are five posters mounted on the adjacent wall: The original live performance announcement, the Argot Public Works Brochure, a pixilated graphic of nesting dolls which have blurred together, a modified Sprint advertisement that now includes the M49, and the federal frequency allocations chart which has also been modified. A void has been incised into the area of the chart that shows the location of the spectrum where the performance occurred.
Bibliography

3. Warren Sack; software designer & media theorist, Social Technologies Group 2005
5. Ibid
8. 'Anarchitect' artist Gordon Matta-Clark, for example, attempted to will, through his work, to make a place become a state of mind. Mary Jane Jacob, Introductory essay; *Gordon Matta-Clark, A Retrospective.* Museum of Contemporary Art, Chicago 1985
(Here Smithson was likely making reference himself, to Vladimir Nabokov’s observation that, 'the future is but the obsolete in reverse.') The entire quote follows: ‘That zero panarama seemed to contain ‘ruins in reverse,’ that is all the new construction that would eventually be built. This is the opposite if the ‘romantic ruin’ because the buildings don’t fall into ruin after they are built, but rather rise into ruin before they are built.’
11. At odds with the ambitions for wireless technologies as devices to be used to decentralize power sources, cultural critics in the middle twentieth century predicted then new technologies as forces that would produce a general homogenization of society. This was articulated, for example, in works like *The Dialectic of Enlightenment,* by Theodor Adorno and Max Horkheimer.
14. Michel Foucault; *Of Other Spaces: Utopias and Heterotopias,* 1967
16. My use of the term ‘uncanny’ is informed by theories of the uncanny in architecture, stemming from terms defined by Freudian psychoanalysis. Capgras Syndrome, in relation to uncanny sensation, is a condition found in certain cases of schizophrenia where it is believed that the objects (and even people) one encounters are exact replicas, doubles, of what they know to be authentic. A person suffering from this psychosis is conscious of the abnormality of these perceptions—that they are not having hallucinations. The imposter is revealed in the effects of seeing certain surface conditions as becoming distressed.

17. Vladamir Nabokov, Pnin, 1957
18. Chris Marker, Sans soleil 1983
23. Envisioning later technological innovation, Bertolt Brecht stated, ‘Radio would be the finest communication apparatus in public life, a vast network…That is to say, it would be if it knew how to receive as well as to transmit, how to let the listener speak as well as hear…’ 1936
24. The United States Commerce Department’s National Telecommunications and Information Administration (NTIA) spectrum chart depicts the radio frequency spectrum allocations to radio services operated within the United States. This chart graphically partitions the radio frequency spectrum, extending from 9 kHz to 300 GHz, into over 450 frequency bands, and uses distinct colors to distinguish the allocations for the thirty different radio services.' Under the provisions of the United States Communications Act of 1934, as revised, authority for managing the use within the United States of the radio frequency spectrum is partitioned between the NTIA and the Federal Communications Commission (FCC). Therefore, to establish which radio services will be allowed to operate in the United States in a given frequency band requires that radio frequency spectrum management policies be established by both the NTIA and the FCC. The chart uses three colors to identify those portions of the spectrum that are managed jointly by the FCC and NTIA, and those portions that are managed exclusively either by the NTIA or by the FCC.
25. John Brinkerhoff-Jackson, Discovering The Vernacular Landscape, 1986
28. Le Corbusier, *A House is a Machine for Living In*’—on architectural purism
29. M49: Vehicle used in performance to operate low power mobile broadcast.
30. ‘When the crest of one wave passes through, or is superpositioned upon, the crest of another wave, we say that the waves constructively interfere. Constructive interference also occurs when the trough of one wave is superpositioned upon the trough of another wave. During any wave interference the shape of the medium is determined by the sum of the separate amplitudes of each wave. We often say that when waves interfere, amplitudes add.’ [http://id.mind.net/~zona/mstm/physics/waves/interference/intrfrnc.html](http://id.mind.net/~zona/mstm/physics/waves/interference/intrfrnc.html)
   In *Twisting the Separatrix*, Jeffrey Kipniss discusses concepts at the core of deconstruction through the seminal collaborative work of Jacques Derrida, Peter Eisenman, and Bernard Tschumi in Parc de la Villette, Paris.
33. Argonaut: An adventurer, -the protagonist of the M49 Radio play, derived from Argot (and, mythologically, from the ship Argo; the first craft that ever ventured to sea, and as the one that bore the Argonautic expedition to Colchis on its quest of the Golden Fleece.)
34. Joe Milutis, *Ether*, University of Minnesota Press 2006
35. Argot is defined by the Merriam-Webster online dictionary as an often more or less secret vocabulary and idiom peculiar to a particular group. Argot is primarily slang used to prevent outsiders from understanding hidden conversations. My character, Argot, emerges from within the zone of communication, representing an incommensurable, insulated area. Though he takes on the characteristics of the environment that he accesses, he can only be understood by his command center, M49, with whom he is speaking.
37. Adorno was said to have admired the creative event of the fireworks display, in that it left no residual traces.
40. Bart Van der Straeten in Mark Wigley’s, *The Uncanny and the Architecture of Deconstruction* MIT Press, 1993
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42. In reference to the artist's PD dispatch training, Hudson, NY 2004
43. Joe Milutis, *Ether*, University of Minnesota Press 2006
44. Proprioception is defined as the neurological sense that allows one to know not only where one is in space, but also the position and location of each individual part and joint. Wikipedia, 2005
45. Peter Wheelwright, *In The Cause of Architecture*, an on-line journal of ideas from Architectural Record
54. H.G. Wells wrote and performed in the 1938 radio drama, *War of the Worlds*
56. Neighbor, R. *The Inner Apprentice* Plymouth UK; Petroc Press 1992
57. The caduceous is a symbol used by medical organizations. It represents a magic wand of the Greek god Hermes (Roman Mercury), messenger of the gods, inventor of (magical) incantations, conductor of the dead and protector of merchants and thieves. It is derived from the Greek karykeion = "herald's staff", itself based on the word "eruko" meaning restrain, control -arisen by the seventh century A.D., http://drblayney.com/Asclepius.html
Image Inventory


2. Argot Public Works Projects; Brochure Layout. The brochure is a layout of recent ‘unauthorized public works projects’. The array of graphical symbols, performance stills, and photographic documents indicate the overall project with which M49 is involved. The project is a performative reengineering of public space; a conflation of physical interventive renovation with urgent zones of clandestine communications. The overall narrative of the picture board depicts a transition from urban infrastructure to electromagnetic infrastructure. M. Goldfarb 2006

3. Still Image from, Ghost In The Shell, Directed by Mamoru Oshii, 1995

4. Sprint Product Replacement (modified advertisement): No Down Time, No Waiting For Answers (Sprint) 2005

5. Still Image from Sans Soleil, Chris Marker, 1983

6. Ibid

7. Ibid

8. The Federal frequency allocation chart: a visualization of the structure of the radio spectrum as it is divided into frequency band use. The chart is a document that illustrates compartmentalization of audible frequencies into a spatial construction for the purpose of order and regulation among a wide variety of applications.

9. Crenelated Boundary Wall, installation detail, Installed at Sculpture Center, L.I.C., NY In this installation, the FCC frequency allocations chart was converted into a medieval fortress by breaking the progression of the spectrum into crenelated segments that are mounted on the top of an existing barrier wall. The west wall, shown here is 17'x100' and the north wall is 17'x36'. A legend is made available so that the crenellations of the wall can be read linearly from 3kHz to 300GHz. The graphical addition to the wall equates the regulatory characteristics of the spectrum to a dematerialized fortress. M. Goldfarb 2005

10. Detail from transmitter assembly before installation in M49.

11. Ibid

12. Ibid

13. Ibid

14. Photograph by M. Goldfarb 2005

15. Drawing by M. Goldfarb 2001
**Image Inventory**


18. Bicycle Generator Drawing study for *Field Transceiver Tent*, M. Goldfarb 2005

19. LPFM Bicycle from *Case Western Study* performance, Stata Center, Cambridge, MA. M. Goldfarb 2005

20. Detail, *Field Transceiver Tent*, M. Goldfarb 2005


22. *Rural Electrification Administration* poster, Lester Beall

23. M49 parked beside Hudson Health and Human Services Building, M. Goldfarb 2005


27. *Ant Radiation Grid*, graphic designed for M49 carpet, M. Goldfarb 2006

28. Stages of M49 renovation, M. Goldfarb, 2006


30. Antenna radiation grid.

31. Still image from M49 performance, M. Goldfarb 2006

32. Ibid

33. Ibid

34. Ibid

35. Ibid

36. Ibid

37. Three views of the McGovern Center for Brain Research, M. Goldfarb 2006

38. Two views of 112 Main Street, Google Earth 2006


40. Still image from *The Conversation*, Francis Ford Coppola, 1974
Image Inventory

42. *The Argonaut* drawing, ink on paper, M. Goldfarb 2006
43. Radio Wasteland graphic
46. *Caduceous*, graphic designed for carpet.
48. *Forcefield* graphic, M. Goldfarb 2006
Invaluable:

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