The term “data” originated as the plural of the Latin word datum, meaning "something given."[1] In the world of experience, our datum is a culturally constructed social context. This context, and the socio-ideological experience of individuals in the context of contemporary Western societies, is defined by what Katherine Hayles has called the “materiality of informatics”: "the material, technological, economic, and social structures that make the information age possible." Hayles’s “Informatics” includes “the late capitalist mode of flexible accumulation; the hardware and software that have merged telecommunications with computer technology; and the patterns of living that emerge from and depend upon instant transmission of information and access to large data banks.”[2]

Data on its own has no meaning; data must be interpreted in order to take on meaning and become information. Data is a mark or trace that represents a portion of the real world; it is a representation that can be processed and transcribed into a readable language on a sustainable medium—a completed questionnaire, a taped interview, the recorded results of an experiment. Events or experiences that leave physical, virtual, or perceivable marks can be traced through data. Marks lose the status of data when they can no longer be interpreted because the code linking them to particular observations is unavailable.[3] People, and computers, find or impose patterns on data—patterns that are seen as information used to enhance knowledge, authorized as aesthetic or ethical criteria, and accepted as truth. Patterns mined from data may be structures observable through the senses (and therefore subject to aesthetic evaluation), or normative examples for behavior (subject to questions of ethics). Since actions or behavior can be said to have beauty beyond sensory appeal, aesthetics and ethics intersect. It is at this intersection that the question "How should we live?" is posed—querying methodology (how), desire (should), identity and community (we), and the conditions of existence (live). Together, ethics and aesthetics challenge the function, nature, ontology, and purpose of art. Historically, aesthetics has played a central role in the development of the ethics of the individual subject and, while the problem of “the nature of beauty” has been rendered irrelevant to some degree in postmodernist criticism, aesthetics may still be used as a tool to examine the relation between art and life. In aesthetics (and ethics), the question of beauty is linked to the question of subjectivity. Two approaches to the problem of beauty (or of morality) dominate: the objective, which asserts that beauty (or ethos) inheres in the object (or absolute) and that judgments concerning it may have objective validity, and the subjective, where the beautiful (or just) is identified or determined by the observer.
Unifying Functions

Both the objective approach and the subjective approach presuppose the status of the object, or work of art as a unified whole. In his 1979 essay “What Is an Author?” Michel Foucault asks, “What is this curious unity that we designate as a work?”[4] What are the limits or boundaries of a work of art? Of what is it comprised? Is it the product of an author? If so, then the question of who, or what is an author must arise. Foucault stipulates that a “work,” in the modern era, is both defined and constrained by the name of the author—the “author function.” Foucault’s “author function” is a system of classification where the name of the author (as opposed to “signer,” “guarantor,” or “writer”) identifies, elevates, and frames a text. The author function has to do with ownership and transgression. The author functions as the founder of a discourse, the owner of the property of a text, and, as such, an individual subject, both privileged and psychologized, whose biography gives meaning to and takes meaning from the text.

When an individual is accepted as an author, then what, of all that the individual wrote or produced or left behind, is part of the “work”? Foucault follows this question to its logical conclusion:

When undertaking the publication of Nietzsche’s works, for example, where should one stop? Surely everything must be published, but what is “everything”? Everything that Nietzsche himself published, certainly. And what about the rough drafts for his works? Obviously. The plans for his aphorisms? Yes. The deleted passages and the notes at the bottom of the page? Yes. What if, within a workbook filled with aphorisms, one finds a reference, the notation of a meeting or of an address, or a laundry list: is it a work, or not? Why not?

and

If an individual were not an author, could we say that what he wrote, said, left behind in his papers, or what has been collected of his remarks, could be called a “work”? When Sade was not considered an author, what was the status of his papers? Were they simply rolls of paper onto which he ceaselessly uncoiled his fantasies during his imprisonment?[5]
The author function is a “characteristic of the existence, circulation, and functioning of certain discourses within a society.” Authorship evolved as discourses became transgressive and owners/writers/signers/identifiers of texts could be subject to punishment. “In our culture (and doubtless in many others), discourse was not originally a product, a thing, a kind of goods: it was essentially an act—an act placed in the bipolar field of the sacred and the profane, the licit and the illicit, the religious and the blasphemous. Historically, it was a gesture fraught with risks before becoming goods caught up in a circuit of ownership.”[6] To Roland Barthes, “The author is a modern figure . . . the epitome and the culmination of capitalist ideology.”[7] The individualization of the author provided a context for the objectification of the work as both unity and commodity.

The premodernist narrator was a mediator rather than author—a shaman whose role was performative rather than creative. The narrator’s story was an aggregate, its origin collective. The shaman/narrator performed for the community narratives belonging to the community. Did these narratives have the status of a work? Is, for example, *One Thousand and One Nights* a work? Or is it a database? The author function unifies a “text” or a body of work so that the relation between a group of texts is fixed. The storyteller draws on and contributes to an evolving database—searching, selecting, elaborating, contributing. There is no fixed relation, no unity, no single author—only stories that continuously unfold to reveal increasingly complex topologies. These fluid configurations, the fleeting figures and patterns they reveal, are the concern of ethics and aesthetics in the context of the materiality of informatics—not “What constitutes a work?” or, “Who is to be identified and accepted as an author?” The insistence on the unity of a work is as problematic as the notion of the author’s individuality,[8] or the idea of the uniqueness of the subject. Authorial individuality and authority is already “de-centered” by the fragmentation of the social world, by the relativity and relationality of the worldviews of any of its actors. The problem of representation in art, literature, and politics is analogous to the “propositions of relativity and quantum physics, that can make no statements about nature that are independent of the framework of the investigation.”[9]

Uncertainty Fields

Quantum physics is, to quote Nicholas Mosley in *Hopeful Monsters* “the study of things that cannot exist using methods that are admitted not to refer to what they talk about.”[10] Quantum physics locates the interaction of or exchange between two separate physical systems, for example, two bodies, to a “field” that extends from one to the other. In physics, a “field” is a region under some influence, such as gravitation. A system, like a body, consists of components, which are organized to facilitate the flow of information, matter, or energy. A system may be open or closed, (homeo)static or dynamic. “At arbitrary boundaries, a collection of interrelated components may be declared a
system and may further be abstracted to be declared a component of a larger system. An open system can be influenced by events outside the declared boundaries of a system. A closed system is self-contained: outside events can have no influence upon the system. Dynamic systems have components and/or flows that change over time.\footnote{Physicist Werner Heisenberg posited the simultaneous absence and presence of matter where every object can be understood both as a localized point (finite, bounded, specific) and as a variably distributed wave function (spreading infinitely).} Heisenberg’s uncertainty principle is taken to mean that on an elementary level, the physical universe does not exist in a deterministic form, but rather as a collection of probabilities, or potentials. The Principle of Uncertainty states that at the quantum scale, both the location and the velocity of a particle cannot be known simultaneously because the act of observation (performed through electromagnetic instruments) itself introduces energy into the system of particles observed, thereby influencing them so that their behavior cannot be known independently of the observer. This unknown quality led to the debates about how deep uncertainty goes. Is uncertainty fundamentally a part of how nature works? In other words, are the behaviors of the particles themselves uncaused and unknown to them before they move.\footnote{Outside the contexts of physics and computer science, “field” is defined as “a complex of forces that serve as causative agents in human behavior” and a system is understood as “a complex of methods or rules governing behavior.” Uncertainty is an inevitable part of the assertion of knowledge. Everything said is said to an observer; knowledge of reality is dependent upon the perceptions of the observer. Observation or measurement affects the state of the object being observed—that is, objective measurement or observation from outside a system is not possible, and the act of observing makes the observer part of the system under study. The observer, whose observation is initiated in order to produce a representation of the system observed, is progressively incorporated into the system. The authority of representation, as such, is compromised. Uncertainty is thus implicated in the disappearance of the author/observer. His disappearance, or death, is produced and reproduced in a variety of narratives that originate in diverse discourses from semiotics to cybernetics. Cybernetics and computational biology (or Artificial Life research) offer models for rethinking representation and authorship in the epistemology of autopoiesis, and emergent systems called cellular automata. These models move beyond the interpretation of “uncertainty” as the collapse of the separation between subject and object—the death of the author—and posit multiple differentiations, and proliferating perspectives—emergent dialogism.}

\textbf{Dialogism}

Autopoietic systems, as articulated by second-order Cybernetitians, Humberto Maturana and Francisco Varela,
incorporate the observer as part of the system. Through recursive interactions with its own linguistic states, an autopoetic system may always linguistically interact with its own states as if with representations of its interactions. An autopoetic system is self-reflexive, self-organizing, self-making. Such systems are “informationally closed,” responding to environmental stimuli based on their own, internal self-organization. An autopoetic system envelops the observer/subject within its field. What is seen by the subject is seen through the filter of the system—from inside the system’s perspective. In an autopoetic system, system and subject, perception and representation, are collapsed, elided—there is no exterior. Subjectivity is system-dependent and systemic. There is no representation external to the experience of the system itself. As in Bakhtin’s dialogic, polyphonic, multivocal model for narrative, in an autopoetic system there is “first, not one entity or consciousness absorbing others into itself as objects but a whole formed by the interaction of many entities or consciousnesses none of which entirely becomes an object for the other, and . . . second, an avoidance of objectification—non-participating third parties are not represented in any way—only participating voices speak within and through their own intersubjective experience.”

Emergence

In *Cellular Automata Machines: A New Environment for Modeling*, Thomaso Toffoli and Norman Margolus maintain that cellular automata “are the computer scientist’s counterpart to the physicist’s concept of ‘field.’” Cellular automata are self-evolving or emergent; cellular automata are systems that extend in space and evolve in time according to local laws. The automata is a field or frame, usually represented as a two- or three-dimensional grid of cells or pixels. Each cell or pixel may “behave” independently at each “step” in time based on a table of rules and a given initial condition. The table of rules is a set of definitions for the behavior of each pixel or cell in relation to the state of each neighboring pixel or cell. Given any initial condition, a global state emerges from the local interactions of discrete entities in an iterative and evolving system.

Where subject and system collapse in autopoetic epistemology (causing perception and representation, which are dependent upon the organizing principle of the system, to be played out in self-reflexive reiteration) in emergent systems like cellular automata, subjectivity is socialized and the system functions as a “community.” The subject position posited by the cellular automata model is relational and associative—both distributed and discrete. A
global perspective and a multitude of particularized, local perspectives exist in simultaneous interdependence. In cellular automata, the contradiction between individual autonomy and community collapses. Cellular automata embody an oscillating, productive, tension between the individual and the social—there is no observer, only interdependent agents or actors.

The problem of the role of the observer in physics and cybernetics is parallel to the problem of authorship and representation in art. As the relation of observer and observed is redefined so that it may be possible to "re-examine the privileges of the subject" and the function of the author as suggested by Foucault, "In short, it is a matter of depriving the subject (or its substitute) of its role as originator, and of analyzing the subject as a variable and complex function of a [system or] discourse." 19

Collaborative Systems

Foucault's reexamination of the privileges of the subject interrogates the conditions of possibility and the rules under which "something like a subject" might appear and function in discourses/systems/texts. Here he poses a challenge:

I seem to call for a form of culture in which fiction would not be limited by the figure of the author. It would be pure romanticism, however, to imagine a culture in which the fictive would operate in an absolutely free state, in which fiction would be put at the disposal of everyone and would develop without passing through something like a necessary or constraining figure. . . . The author has played the role of the regulator of the fictive, a role quite characteristic of our era of industrial and bourgeois society, of individualism and private property, still, given the historical modifications that are taking place it does not seem necessary that the author function remain in constant form, complexity, and even in existence. I think that, as our society changes, at the very moment when it is in the process of changing, the author function will disappear, and in such a manner that fiction and its polysemous texts will once again function according to another mode, but still with a system of constraint—one which will no longer be the author, but which will have to be determined or, perhaps experienced. 20

The historical modifications and social changes that Foucault anticipates are manifest in the "materiality of informatics." We must try to reimagine the pervasive systems and interfaces of "informatics," which have become the unacknowledged tools of the everyday as a datum, "something given" on which to build a space for polysemous texts
and Bahktinian polyphonies—a space that will allow a plentitude of voices; a space for collective self-representation; a space where nonparticipating third persons are not represented in any way. 

This free space, “in which fiction would be put at the disposal of everyone and would develop without passing through something like a necessary or constraining figure,” is embodied (made possible) in "collaborative systems." I use the phrase “collaborative systems” to describe public art produced in collaboration with local and online communities and structured on the model of the spatially and temporally distributed dynamics of cellular automata. Collaborative systems are both social and technological: As Stephen Willats notes: "Any social organization can be thought of as a complex, evolving system insofar as it generates behavior that is unpredictable, non-linear, and capable of producing multiple outcomes." Social systems, like cellular automata, are rule-based emergent systems. In social systems, however, as in collaborative systems, the initial condition of the system (the state or condition of the field or world at the first step of evolution) is contingent upon tangible, global conditions that are in flux, and its rule-table (directions for the behavior and interaction of its "cells") is, itself, emergent. Therefore, the rule-base of a collaborative system is dynamic and self-reflexive. A collaborative system may frame human participants, artificially intelligent agents, computer algorithms, and computer or community networks in the location of the individual "cells" within a field. Each "cell," entity, or human participant has agency—playing a role in the "inter-authorship" of the system in response to the conditions of the field.

A collaborative system generates a material condition for the disappearance of the author function and fulfills Foucault’s prediction regarding a "system of constraint—one which will no longer be the author, but which will have to be determined or, perhaps experienced." A collaborative system makes no reference to “originality,” authenticity, or psychologizing identification with an author. Collaborative systems focus instead on how a discourse can circulate, who can productively appropriate a discourse, "what are the places in it where there is room for possible subjects? and, who can assume these various subject functions?" (ibid.). In collaborative systems, the author function is supplanted by a "subject function," where "subject" is a variable: a quantity that can assume any of a set of values. This variable "subject-function" speaks with many voices. In a collaborative system, public-information spaces and communications technologies are exploited in order to establish a framework (designed in dialogue with a community), in which collaborating participants can build databases of texts, sounds, and images from their own world of reference or experience and structure and interpret that data themselves. Through this collaborative process, the individual private subject consciously engages a sociopolitical network, the sociopolitical merges into the private/personal, and the subject emerges as a politicized participant in an intersubjective network.

The Bahktin circle, which combined the study of philosophy, social theory, and criticism with collective literary production, is both a precursor and an influence on collaborative systems. The circle frames a field of
discourse and patterns of thought emerge through collective articulation. For Mikhail Bakhtin, meaning is derived from dialogue, which is grounded in a social context. He adheres to the idea that social and aesthetic forms are produced under particular circumstances. These provide a resource for an analysis of everyday life. There is no place for the heroic author or actor in Bakhtin’s analysis. Rather, he seeks out the voices of those excluded from “history”—voices “that reveal the details of everyday life—in order to decode the social world.”

Bakhtin’s theory of dialogism assumes that no individual ever writes, or authors, alone. “Writing” (imaging, speaking) is the result of our interactions with the world. “The Author is . . . the ideological figure by which one marks the manner in which we fear the proliferation of meaning.”

To write and construct new knowledge and meaning, the subject must be a variable—we must engage in a dialogic process where “the words and images of one individual are examined and primarily understood in relationship to the words and images of others.”

This interaction requires an infrastructure like that of a database.

Database Aesthetics

A database is relational and nonhierarchical. It is a structure that persists while its content evolves and is displaced. The structure of the database comprises an initial condition for the evolution of a system. Evolution and displacement are fundamental to the dialogic process. Through this process all the possible meanings of stories, statements, images, and words interact, and possibly conflict, to affect and change their future meanings. Collaborative systems are dialogic spaces in which the acts of writing, imaging, storytelling, and political statement are a collective production, a process rooted in social interaction and dialogue that produces a narrative without authorial consistency. This notion of a multivocal, but authorless, narrative necessitates a radical rethinking of aesthetics, suggesting the possibility of an aesthetics of “Database.”

“Aesthetics” has traditionally meant “a theory or conception of beauty.” A “conception” of the “beauty” of a database is not located in the viewer’s interpretation of a static form but in the dynamics of how a user inflects the database through interaction with its field or frame. A database incorporates contradiction; it is simultaneously recombinant and indexical, precise and scalable, immersive and emergent, homogeneous and heterogeneous. It is a field of coherence and contradiction. The aesthetic dimensions of the database arise when an agent traverses this field of unresolved contradictions. The database is comprised of nested subfields, which are activated, and given ontological status by the agent’s trajectory through its field. Continuously emergent ontological states resolve as new subfields from each interaction and are integrated into the field, changing and transforming the content and structure of that field and constituting not an “art object,” but a continuously evolving and fluid system. These are the conditions
of possibility of “database aesthetics.”

An argument for the “conditions of possibility” of database aesthetics can be grounded in the analysis of systems found in the world. The following four “found” systems provide external evidence of and extended context for an aesthetics of the database.31 Each example is an archive, artifact, or instance of a specific, social, economic, political, and/or cultural response to a materially and historically contingent, phenomenological field. The Paris catacombs, Sainte-Chapelle, the insect collection of Anne and Jacques Kerchache, and the city of Venice itself are material/experiential manifestations of the impulse to order, classify, name, and systematize relations of meaning within specific social, cultural, and political contexts. Each in turn is evidence of a particular process or perspective. The Paris catacombs were created through a process of displacement, fragmentation, reorganization, and redistribution that transferred the locus of identity from the individual body to its discrete parts and place of origin. The stained-glass windows of Sainte-Chapelle are a kaleidoscopic database of instructions embedded in a narrative designed to be traversed on multiple levels of temporal scale. Their overall pattern reveals, through shifts in time and light, subfields of social and moral particularity. There can be no one-to-one map of Venice because no absolute or fixed representation of its features is possible. Every feature of the city has been named and renamed from a continuously shifting and overlapping multiplicity of perspectives. Every map of Venice is larger than its territory. The Kerchache collection is a crystallization of formulations of power—in its aestheticization of “nature” (a reification of relations of difference and similarity), and in its rational capitalist method—acquisition, accumulation, classification, and display. Each is an example of a unique system of representation, method, or perspective by which a social system organizes (organized) data in response to evolving phenomenological processes within a socio/economic, political, moral/religious, or scientific field.

Found System: The Paris Catacombs

[FIGURE 8.2 A-F HERE]

The Paris catacombs constitute a massive database of the dead, embodied in an immersive environment. After a long, winding descent, narrow stone corridors suddenly transform into stacks and rows of human skulls and femurs ten feet in depth and rising eight, lining what appears to be an infinitely receding passageway. Shock registers in sudden breathlessness. Immersion here means immersion in a monumental volume of loss and decay. However, after this first bodily response, the response-type that is the locus of traditional aesthetics, ones perception shifts to
the obsessive, repetitive, endless, stacking, ordering, patterning, and cataloging of human remains. These remains are organized and categorized; identified in groups by their location of origin in once consecrated graves. The algorithm used to construct the catacomb: exhume skeletons, reduce individual skeletons to skull and femur, remove fragments to catacomb, situate in subfield identified with graveyard of origin. Identity and location have been displaced by a general categorization of fragments that constitutes a field. Each particular body as organic whole is lost—its history and context subsumed in subfields. In this example, database aesthetics works through displacement that resolves into a pattern, which constitutes an immersive, phenomenal space. The Paris catacombs were once a dynamic system that has ceased to evolve. They are a reflection of a specific historical/material circumstance and a complex of political and socioeconomic priorities: state over individual, progress over history, place over person.

Found System: Sainte-Chapelle

[FIGURE 8.3 HERE]

The chapel as a whole is an information system with a nested or “whole-to-part” structural organization. This structure was designed to regulate temporal and social experience. The walls of the upper chapel are formed by fifteen stained-glass windows, which comprise the data-field of the chapel (Figure 8.3). Each window is divided into subfields, or self-contained individual panels. No two panels are alike. This idiosyncratic differentiation is mediated by the ordering frame of the chapel’s architecture, which produces the appearance of a coherent pattern. The aesthetic experience is one of oscillation between the impact of the architectural frame, or field, and the stimulus of the visual and narrative figuration, descriptions, and instructions in the individual panels of the windows, or nested subfields.

Each panel or group of panels has a narrative structure meant to didactically prescribe a moral code and outline a spiritual practice. Together, the panels function as an immersive rule table. Parishioners are meant to emulate the characters depicted in the stories and structure their social interactions accordingly.

The experience of the chapel for a parishioner was time based; the illumination of the chapel’s narrative database is subject to the cycles of night and day, and to the longer units of yearly seasonal change. The chapel is therefore a clock that temporally orders the live of its members as well as a social and moral handbook that regulates their behavior.
Found System: Venice

The database for the “conditions of possibility” of the city of Venice is a field defined by excess and necessity, decadence, and survival. Here water, architecture, commerce, and tourism comprise a system that is both emergent and immersive: a physical and historical “collaborative system.” The lagoon and canals frame the complex fields and subfields of the city, while, simultaneously, the city frames their tidal flow. Venice is a body floating, suspended in its own fluids. Water contains and fills, encompasses and embodies it.

The vector that traverses the field of Venice is the loss of perspective. Venice is a manifestation in experience of the condition of schizophrenia. As Fredric Jameson notes: “When the links of the signifying chain snap, then we have schizophrenia in the form of a rubble of distinct and unrelated signifiers.” There is no way to get one’s bearings regarding the relation of past to present and present to future, name to place—language. If, as a tourist, one wanders in the city, then any street, campo, canal, or fondamente is the way (or means) and the end. The experience is immersive. There is no distance, no possibility of objectivity. No matter how many maps of the city one has, it is impossible not to get lost. Every small alleyway, canal, campo, fondamente, has several names—or rather, each may be individually named and all the names may represent the same physical point but from different frames of reference or perspective locations. It is possible to consult many maps of Venice of varying degrees of scale, detail, and resolution, overlaying map upon map. Maps representing different and multiple perspectives leave one always in some sense lost—as no one map or combination of maps coincides with one’s own immediate subjective and physical location. “With the breakdown of the signifying chain, therefore, the schizophrenic is reduced to an experience of pure material signifiers, or, in other words, a series of pure and unrelated presents in time” (ibid.). To “lose ones way” in the city would be oxymoronic—it is the condition of being in Venice, as such. After all, where is one attempting to go? One is constrained by the boundaries of the “world” or system, which both frame an empty space and reconstitute a new field.

In this context, the movement of an individual is linked to the movements, constraints, and containments of light, sound, and water within the system of canals and fondamenta. This interdependency functions like a four-dimensional mesh where the displacement of one node or intersection necessarily distorts the surface of the whole, collapsing and expanding the individual interstices accordingly. The construction of Venice was an expression of power—the desire to dominate nature for the sake of commerce and control. Composed of incompatible elements, the flickering insubstantiality of its fluid markers, names and traces, Venice teeters on the brink of submission—power giving way to impossibility.
Most exemplary of the connection between classification and the dominance of nature is the exhibition Nature Demiurge. Insects from the collection of Anne and Jacques Kerchache were displayed at the Foundation Cartier pour l’art contemporain like a collection of precious jewels. Identical, velvet-lined vitrines embedded in the walls at eye level circumscribed the gallery in a single, luminous line. Each elegant case contained a number of specimens from a particular species of insect. The specimens in each case were nearly identical. Upon close inspection, subtle variations in pattern or color could be detected. The exhibition constituted a database of continuous differentiation—a play of difference along a spectra of metonymically arranged data. The focus of the exhibition as a whole was the demiurge: the pattern of patterning, the designing of design. Through a strategy of iteration, the collection of individual cases displayed the inescapable interweaving of the homogeneous and the heterogeneous.

In incremental steps, the variety of pattern within the strict parameters of a “world” or species was expressed. The range of difference was so small that field and subfield were nearly coextensive. Nested within each subfield, the metonymy operates at the level of individual specimens—for example, the iteration of difference in pattern across the individual wings of one butterfly. In one example, a species of butterfly whose wing pattern includes large and intricate “eyespots” (Figures 8.4 and 8.5), the pattern formed a recognizable image that appeared to employ the representational devices of mathematical perspective and chiarascuro. Each eyespot was comprised of a two-dimensional border encircling a form that appeared to be rendered in three dimensions. On each of the wing segments, the “rendered” form was similar in “style” but was unique in size and shape. This was true of each of the six specimens. Of the examples of this species exhibited, no two “rendered” forms were identical, although their location, scale, and “style” were similar. The “style” of the rendering was equivalent to a hatched and shaded, volumetric and perspectival, charcoal drawing. The volumes thus “rendered” were complex, organic topologies resembling droplets of water. These fascinating and intricate designs in some sense suggest conscious perception and subsequent description—intentional representation of a type attributed to an author. Together they formed a subfield that illustrated the complexity of the rule-base of the system.

A database is a picture, an image of a system of meaning organized from a social perspective. While each of the preceding “found” database examples emerged from a particular civic or religious institution’s perspective, the collection of Anne and Jacques Kerchache illuminates larger, more encompassing perspectives—those of the Enlightenment and scientific rationality. Here the dominance of man over nature is expressed through accumulation, classification, and aestheticization. The collection incorporates the aesthetics of the database, as an organized
representation of an emergent field of differentiation, but simultaneously reveals an ethics of dominance—as a paean to the demiurge, author, collector. The act or process of collection is a narrative of mastery and a master narrative; the impulse, scientific and/or aesthetic, is a product of power and privilege. The collector functions as author, one who possesses, names, and classifies. The collection is identified with the collector and this identification imposes a unity on the contents of the collection.

*Nature?*

A collection is produced through processes of selection and differentiation—sorting, classifying, rejecting anomalies—making patterns. Recognizing the patterns is aesthetic. Appreciating the connections is aesthetic. Manipulating the patterns is an expression of power. In the project *Nature?* artist Marta de Menezes imposes her aesthetic will on the development of eyespot patterns in the wings of butterflies. The following is a description of the work posted by Ars Electronica during its exhibition at the festival 2000 "Next Sex:"

> *Nature?* involves the interference with the developmental program of butterflies in order to generate live butterflies with wing patterns never seen in nature. Although the patterns are artificially determined, they are made of normal live cells—examples of something simultaneously entirely natural, but not designed by nature. In *Nature?* the artist only modified the pattern of one wing of *Bicyclus* and *Heliconius* butterflies. Through this asymmetry the similarities and differences between the unmanipulated and manipulated, between the natural and the novel natural are emphasized. The changes are not at the genetic level, and the germ line is left untouched. This form of art has a life span—the life span of a butterfly. It is a form of art that literally lives and dies. It is simultaneously art and life. Art and Biology.\(^{35}\)

For what are apparently purely aesthetic reasons, Menezes performed microsurgical interventions on the cellular level that alter the pattern and color of "eyespots" on only one of two wings of a butterfly.\(^{36}\) These are nongenetic manipulations that do not cause changes in behavior or longevity. Menezes has exploited two methods of changing the pattern of a wing without intervening genetically. The first method involves transplanting small parts of the fabric from one area of a wing to another. The second operates at the cellular level: Menezes corrodes cells with a small
needle, thus affecting communication between the cells. Her goal, as articulated in a paper she presented at a conference titled *The Aesthetics of Care?*[^37] is to use biology as a new material and medium for a very traditional type of art practice. Like so much paint, the cell structure of a living thing is manipulated for a purely visual effect that can be evaluated only within the criteria of an ethics and aesthetics of dominance. *Nature?* has been spoofed by the *Artistic License* project, whose trademark bears the imprint “because it is art.” Hubris Inc. is also the umbrella for *ego.com* (whose logo include the phrase “it’s all about me™”). *Artistic License* is a division of Hubris Inc., which “proudly sponsors artists who work with emerging technologies to create high profile safe spaces where the public can come to appreciate [and accept] potentially threatening technologies.”[^38] The parody project *butterfly technology* (the online project description refers directly to Menezes with a now-broken hypertext link) proposes the use of DNA modeling to produce butterflies for corporate office parks whose wing patterns are manipulated to display corporate logos.

[FIGURE 8.4 HERE]

[FIGURE 8.5 HERE]

*Nature?* is an extreme example of the practice of the aesthetic of dominance, one that may be offensive or reprehensible. I use it as an example to trouble the question of the author in the context of database aesthetics and to discuss the potential for the aesthetics of database to become entangled with an aesthetics of dominance. If the database is seen as formal, as opposed to social, it can certainly be seen as a field for the play of dominance. For example, from a purely formal or structural perspective, Menezes might see the cell structure she manipulates simply as a database that might be traversed and reconfigured for her own aesthetic pleasure, or as a means to participate in a narrative about the relation between art and science. There are master narratives implicit in the origin of each of the found systems that I have used as examples of the conditions of possibility of database aesthetics—complex and coextensive contradictions.

A database can represent the operative or dominant cultural perspective of given society—mapping and visualizing its rule table and recording the patterns that result. Naming, classifying, and categorizing have been acts of domination and ownership since the Bible. Recognition of difference (and similarity), rationalization, and discrimination are an integral part of Western culture. Taxonomies, entomological or otherwise, impose order according to presumed natural relationships. Anthropological taxonomies of race, class, gender, origin, culture, and difference-on-down-the-line are instruments of political and social othering that secure the meta-categories of us and them. Sorting, classifying, rejecting anomalies, making patterns—these are protective mechanisms, methods of
observation that affirm the assumptions of the observer.

By acknowledging the role of ideology and desire in the process of ethnographic observation and cultural representation, Clifford and Marcus’s collection, Writing Culture, showed us that “evidence” can be taken as discourse, and, specifically, that the ethnographer engages in “rhetoric and other weapons of persuasion—metaphor and metonymy, tropes and so on.”[39] Classification, description, and categorization are central to the formulation of knowledge—“the troubled, experimental knowledge of a self in jeopardy among others.”[39] [40] But, along with Nicholas Mosley, we may ask: “might there not be an anthropology in which the observer is seen as part of what he observes: in which his observing is taken into account as affecting what he observes? . . . Might there not be some anthropology to do with change? If we stand back from the part of ourselves that is part of what we see . . . might there not be freedom for change?”[40] Database aesthetics can provide a free space, a field for dynamic interaction. But this field, unfortunately, may be framed and the data may be organized around existing narratives of cultural domination and patterns of objectification.

Social Aesthetics

To avoid making and reproducing patterns of aestheticization or objectification in the field of the database, the aesthetics of the database must be practiced or applied in conjunction with a commitment to cultural democracy and linked to an “aesthetics of dignity.”[41] [41] My argument here, in part, is that the aesthetic dimensions and processes of the database, a “pragmatic” approach to praxis (asking “What can art do?” in reference to social/political realities), and a recognition of the value of voices that do not belong to authors, taken together, may serve as a point of departure for “social aesthetics” to emerge.

The Quilts of Gee’s Bend displayed in a recent exhibition at the Whitney Museum of American Art in New York present an interesting example. These quilts were created by a group of women who live in the isolated, African American hamlet of Gee’s Bend, Alabama. Like many American quilters, the women transformed a necessity into a work of art—but their innovative, minimalist approach to design is unique. “The compositions of these quilts contrast dramatically with the ordered regularity associated with Euro-American quilt making. The sixty quilts in the exhibition, created by forty-two women spanning four generations, provide a fascinating look at the work of twentieth-century artists who have lived and worked in solitude.”[42] Gee’s Bend is located in southwest Alabama, about thirty miles southwest of Selma, on a sliver of land five miles long and eight miles wide, a virtual island surrounded by a bend in the Alabama River. Bounded by the river on three sides, the community of about seven hundred, descendants of slaves on the former Pettway plantation, has always been an isolated enclave. Geographically cut off from the world,
the women in the community created quilts from whatever materials were available, in patterns of their own design. The programs of the New Deal in the 1930s and 1940s helped the families survive, modernize, and, finally, take ownership of the property they had cultivated for generations, though the community continued to have little contact with the outside world. Until the late 1960s, there was not even a paved road. During the civil rights movement, the Freedom Quilting Bee, a quilt-making cooperative that employed the women of Gee’s Bend, brought the quilters’ work to eastern department stores and they gained widespread recognition.

But marketing the quilts meant reproducing identical examples of the same quilt, which was inconsistent with the process and approach of the women in Gee’s Bend. Their process was often collaborative, social, transformative—a process of voices emerging through conversation, improvisation, and dialogue.

“One time me and I think it was about five of us started to quilting from one house to another. Quilt one or two for one person, go to the next house, do the same thing. Way back yonder. From house to house, quilting quilts . . . . I didn’t start young. I just tried to survive. You learn to do things from other people. You see them do it, you learn. If you ain’t you don’t want to learn. I can’t piece by no pattern . . . . I get some blocks sometimes other peoples put together, give them to me, and I put them blocks in my quilts. I put somebody’s blocks, my cousin Edna, and an old lady Annie, lived up there, put them in, put some variety in.”

Historically, quilting has provided generations of women with an outlet to express their creativity, their convictions, and their skill. The quilts of Gee’s Bend are the result of an unusual degree of cultural continuity and collaboration. Here one can see evidence of the development of a visual language across three and sometimes four generations of women in the same family, or works that bear witness to visual conversations among community quilting groups and lineages. “These women learn from one another but strive to be themselves. The quilts are both the signatures of individuals and banners of a community.”

“After I was married, my mother-in-law, Jennie, taught me how to . . . . just follow my imagination. I had not made that sort of stuff, ‘cause I thought they was ugly, but when my mother-in-law learned me how to make them beautiful, I didn’t want to make nothing else. I watched her tear up old dress tails and make a quilt any kind of way she wanted to. . . . Jennie Pettway told me, ‘You don’t have to worry yourself trying to make . . . . any of those things you got to follow a pattern for. Just take what you know and do what you want to.’ And that’s what I did, and I do it yet, and it’s a good way,
too. It was when my mother-in-law told me I didn’t have to follow nobody’s ideas that I learnt myself to follow my head.” Arlonzia Pettway—“acknowledging her mother in law, Jennie Pettway as an artistically liberating influence”  

Closely linked to family well-being, a sense of identity for the individual quilters, and the cultural continuity of their community, a Gee’s Bend quilt represents a focus on such everyday concerns as salvaging discarded fabric, recycling old clothing, and finding ways to keep the families warm and comfortable. For these women the process of quilting is about communication and connection, which fills both emotional and material needs. “I got good ideas from my mother-in-law, Henrietta. Me and her sewed together. When I had children I had to do better. Made quilts out of old dress tails, shirt tails, that’s the way I did so the children would be covered up.”—Allie Pettway  

In his Foreword to the complete catalogue, Gee’s Bend: The Women and Their Quilts, Peter Marzio, director of the Museum of Fine Arts in Houston, describes the quilts as “works of art that just happen to be made for utilitarian purposes.” His position is problematic. I am disturbed by his modernist reading of the quilts, his comparison to Willem De Kooning and Jackson Pollock, his statement that the quilts “look brilliant in an exhibition gallery,” and his assertion that the art museum functions as an “honest broker of beauty.” Of course, the quilts are works of art and they do look brilliant in the blank white space of an exhibition gallery. But they do not need to be authorized by major mainstream arts institutions largely curated by white men to function as works of art, and they should not be confused with modernist avant-garde painting in a de-contextualizing formalist analysis—looks-like-is-like—especially as their most important function as works of art is exactly the function they serve in the community they came from. As one of the women explained, a quilt “represents safekeeping, it represents beauty, and you could say it represents family history.” While the designs appeal to a sophisticated modernist/minimalist sensibility, the aesthetic employed in the creation of these quilts was born entirely from the social world and material environment of the women who made them. They are the result of a historically evolving communal practice that has produced a social aesthetic. The quilters of Gee’s bend already speak with force and power as artists in their own social world. Their speech isn’t dependent upon having an audience at the Whitney and the Corcoran. The traveling exhibition is a gift to the “us” of mainstream culture—allowing us to hear and see and providing us with a social model of individualism in consonance with community. We must not make the mistake of aligning the aesthetics of the quilts with the aesthetics of rupture employed by the modernist avant-garde merely because there is, on the surface, a formal similarity. We devalue the quilts and their makers if we do not value them in terms of social aesthetics.

[FIGURE 8.6 HERE]
Social aesthetics are "style-less." Style, which is an attribute of the personal, is secondary to cooperation and intervention. Social aesthetics does not operate on the plane of uniqueness but rather in the realm of community and in terms of audiences to be addressed. Notions of value are derived from the social world of the participating community and focused on transformative process, not product. I would like to appropriate this notion of social aesthetics, first articulated by William Olander and Craig Owens in the catalogue for *Art and Social Change, U.S.A.* in 1986, and expand it to address public art that critically engages the "materiality of informatics" by employing information and communication technologies.\(^3\)

Aesthetics of Dignity

Hayles’s "Informatics" is an infrastructure that is of, by, and for the technologically enfranchised socio/economic/political elite, but no one in reach of globalized capitalism, however far outside the infrastructure, is exempt. Informatics provides an environment in which there is "continuing pressure to substitute information for direct experience with material conditions."\(^5\) Certainly, wherever the interpretation of available data is privileged over embodied experience and the consumer is the only acknowledged citizen, the material conditions of the technologically and economically disenfranchised may be ignored, their social role devalued, and their rights systematically erased.

Because political and economic power are increasingly dependent upon access to and presence within the global information culture, the voices of the "underserved" are becoming less and less audible. This dangerous trend could be reversed if communities of interest across the socioeconomic spectrum had access to information technologies and the ability to represent themselves, and their positions, in information space. Any adequate statement on the modern condition requires a plentitude of voices speaking directly from a multitude of contexts about their own socio-ideological situations. This might be achieved through a radical appropriation of informatics as a means to the ends of cultural democracy. As Catherine Stimpson points out in her introduction to Jane Kramer’s “Who’s Art Is It?” an essay about John Ahearn’s controversial public art commission in the South Bronx, it is difficult to “do cultural democracy.” "Doing Cultural Democracy demands . . . the incessant recognition of the moral, cognitive and cultural lives of others." In this dialogic imaginary everyone would have:
1. A right to public speech.

2. A right to pride in one’s historical and cultural traditions.

3. The responsibility to engage in exchanging and mixing narratives—(departing from one’s own perspective to engage that of others).

4. The courage to allow diversity, "no matter how blasphemous, painful, corrupt, bigoted, and stupid."

5. The burden of engaging in the nearly impossible struggle to locate the point at which pain, bigotry, and stupidity become intolerable and to whom.

6. The responsibility to develop a common political language that has “no shared moral, religious or artistic system . . . but binds together by binding to cultural diversity.”

To “do cultural democracy” now, in the context of the materiality of informatics, means:

• Distributing control over the processes of the database—the accumulation and interpretation of information, the naming and classification of data, for the collective construction of a new social semiotics.

• Building and/or annexing social and technological infrastructures that can enable communities to become the co-designers and creators of programs and systems that facilitate their own reclamation, reintegration, and sustainability.

By “doing cultural democracy,” we can fill the space left empty by the death of the author—not to rejuvenate or even democratize the author function, but to assert the place of the participant as a subject. The participant’s statement is a subjectifying and empowering but, simultaneously, an anonymous act. It does not make reference to “originality.” It does not encourage psychologizing identification or suture. The participant’s statement is a self-articulation that unfolds in a polyphony of speaking subjects. The name-of-the-author is erased. Thus, “all discourses, whatever their status, form, value, and whatever the treatment to which they will be subjected, [will] then develop in the anonymity of a murmur.” Foucault quotes Samuel Beckett, “What does it matter who is speaking?” someone said, “What does it matter who is speaking?” to establish this “indifference” as a matter of ethics regarding the death of the author.

One of the “themes” of the death of the author, for Foucault, is “writing’s” relationship with death, or, rather, writing as an effort to elude death. He offers the example of the Arabian Nights. “The theme and the pretext of Arabian narratives—such as The Thousand and One Nights—was also the eluding of death: one spoke, telling
stories into the early morning, in order to forestall death, to postpone the day of reckoning that would silence the narrator. Scheherazade’s narrative is an effort, renewed each night, to keep death outside the circle of life.”

Scheherazade was not an author—she spoke in order to sustain her life and save the lives of others. Her storytelling was a political act. *The Thousand and One Nights* has no single author, only “compilers’ of editions and versions—it is a database, a frame tale, stories within a story. The frame tale is a conceit for the organization of a set of smaller narratives, popular tales, which have also been collectively authored, evolving over time and giving voice to many anonymous narrators. Many of Scheherazade’s tales are also frame tales—nested subfields in the field of a narrative database. The figure of Scheherazade is that of a performer or participant who traverses this field, spinning and weaving a single story out of many. Her storytelling produces a nonauthorial, collective subject whose life/lives are saved through this process of subjectification.

The Medea Project: Theater for Incarcerated Women is a contemporary *Arabian Nights*. The project is a collective effort to save lives by soliciting and telling stories. Rhodessa Jones, founder and artistic director, uses “self-exploration” techniques with an ensemble of professional actresses and incarcerated women to develop and stage performances derived from the prisoners’ own stories. The texts of Medea Project performances are derived from the real-life experiences of the women performing on the stage. During the Medea Project workshop process, the inmates, like Scheherazade, are given nightly writing assignments. They are asked to analyze a key element of a myth Jones has chosen for the performance in relationship to their [own] lives. For Jones, mythology provides a point of departure for exploring the “cultural narratives and the social rituals that directly contribute to women’s incarceration.” The women read their narratives aloud to the group each day. “The ensemble uses the prisoners’ language, their stories, songs, prayers and lies, to shape a script. . . . Storytelling can be a con game, a trick used against one’s foes. It can also be the beginning of a different drama—a way to imagine, if not live out, a new life.”

The Medea Project uses theater to encourage each woman to examine her participation in her own incarceration and explore a wide range of cultural issues and attitudes that perpetuate incarceration and recidivism, including fear of others, drugs, prostitution, poverty, and single parenthood. “Jones works with women in jail, not prison. San Francisco County Jail serves as a temporary holding cell for women who are awaiting trial and cannot post bail or for inmates who are serving sentences shorter than twelve months. This means that the Medea Project works with a highly transitory population. In the three- to four-month period that the Medea Project is working on a production, the entire cast can change several times over. In fact, the cast is never finalized until the day of the performance.” By the end of the workshop process, any participant can incorporate and embody any of the multiple voices that are ultimately heard in the performance. This is significant in terms of the role of the participant subject—the story is not restricted or linked in any fixed way to one writer/performer but is truly collective. “Medea
Project public performances transcend the realm of ordinary aesthetic production. These performances, in which inmates’ autobiographical narratives are staged for both audience members and law enforcement officials, are acts of juridical and political testimony. In this setting the women become the morally and legally recognized source of (self) narration and re-symbolization, and in so doing they create the conditions under which a claim to dignity is possible. It is this claim to dignity that enables these women to challenge principles of distributive justice—and to save their own lives.

The Medea Project is just one example of a paradigm shift in art practice from the aesthetics of object defined by the author function to an activist “aesthetics of dignity” that employs both database aesthetics and social aesthetics. This new paradigm is defined by the participant-subject (who is subjectified through individual and collective storytelling) and the context-provider (who establishes a framework in which the “participant-subject” may emerge and make a “statement” or “articulation” in concert with other participant-subjects—thus producing collective statements out of individual, nonauthorial voices). This can be accomplished through participatory theater like the Medea Project and John Malpede’s LAPD (Los Angeles Poverty Department) and in public-information space through the design of collaborative tools and community networks. Together these tools and networks form collaborative systems through which the context-provider (artist, software designer, activist, organizer) assists communities in collecting their stories, solicits their opinions on politics and social justice, and builds the online archives and interfaces required to make these data available across social, cultural, and economic boundaries.

My own art practice involves the development of collaborative tools and community networks. This has taken basically two forms: I have engaged in custom software development, building tools like Palabras[http://palabrastranquilas.ucsc.edu], that facilitate collective self-representation among technologically disenfranchised communities, and I have established on-going project collaborations that empower participants from specific marginalized groups to represent their own experiences in information space such as Public Secrets [add note] and Need_X_Change[add note]. Each of these projects engages the philosophy of an “aesthetics of dignity” by combining database aesthetics with social aesthetics.

**Palabras** is both a set of tools, designed to facilitate collective self-representation and promote social inclusion, and an expanding network of on-going collaborations with non profit organizations that serve socially marginalized and technologically disenfranchised communities. At this writing the Palabras website provides access to an archive of over 2000 video clips created in Buenos Aires, Argentina, Kiel, Germany, San Francisco and San Jose, California (US) and Darfur, Sudan. The Palabras workshops, tools, and online browser adopt the folksonomic (folk +
Taxonomy) or social classification method to give participants the opportunity to then interpret and classify their own data. This method also simultaneously generates a map of semantic associations between the self-representations created by participant-communities across languages and cultures.

*Palabras_* moves beyond the model of ‘personal computing’ and ‘virtual’ community. Unlike other media sharing web sites that utilize folksonomies, like Flickr, and Utube, *Palabras_* employs tagging in the context of place-based workshops designed to allow communities that may not normally have access to the internet to use media and information technologies to represent themselves and their own circumstances. *Palabras_* also adopts the tactics of Do-It-Yourself technology to provide low cost and context appropriate media acquisition tools.

At each *Palabras_* site inexpensive, disposable digital video cameras (“hacked” or transformed into re-usable cameras) are distributed. These cameras allow participants to document and represent their own experience in their own way. In *Palabras_* workshops participants “tag,” organize, and share their videos online using *Palabras_* web tools (clip browser, tagger, and editor). The web application is designed to facilitate the discovery of connections between participants’ personal stories, at each site and across cultures, by allowing participants to label or “tag” their video content with a shared vocabulary that is both originated by, and familiar to them. This form of social classification allows multiple interpretations and associations to emerge among participants’ video clips. The web-application also provides simple tag search, editing and sequencing tools participants may use to create video sequences using their own clips and those created by members of their community.

The *Palabras_* public browser interface allows a global and international audience online to see the ways in which place-based communities describe their own social contexts. Visitors to the site may also add tags to clips and sequences in the archive through the public browser. Therefore, what is shared among and between participant communities, and interpreted by both visitors and participants, is visualized in the tag cloud and can be seen in the videos as an improvised map of correspondences across cultures.

Mapping is intersubjective communication: the visualization or representation of data and information. The term “map” applies both to a clear representation, one capable of communicating intersubjectively, and the act of analysis required to create such a representation. A map has no single author. To map is to locate, to assign a correspondence. A map fulfills the functions of both record and statement—it is a history of the subject’s, or mapmaker’s, relation to that which is mapped and an act of communication with others who will interpret and use it.
To map is to locate—but position is always "relative to . . ." associative and perspectival. Intersubjective communication occurs when the meaning of data or information is accessible to, or established for, two or more subjects. In intersubjective communication, values and truths are inseparably intertwined. Interpretations and representations are produced dialogically—in cooperation with a “text” or data-set. None of the participants is assumed to be a subject presumed to know—an unquestionable authority—so objective knowledge is displaced by shared subjectivity. To map social and cultural experience accurately requires infrastructures and interfaces that facilitate intersubjective communication, favor dialogue over monologue, and allow representations and interpretations to emerge and evolve—an infrastructure like the database.

[figure 8.9 that represents Palabras_ interface]

Building databases that dialogically map the intersubjective experience of social “others” is a practical and intellectual endeavor, which challenges the historical separation between technological development in digital media art and political activism. This work requires sustained interaction with non-profit organizations that serve marginalized and disenfranchised communities.

Over the past five years I have worked in various ways with the HIV Education and Prevention Program of Alameda County (HEPPAC) in an effort to engage injection drug users in a process of self-representation. The first phase of this collaboration involved training the organization’s staff and clients to use disposable cameras and author websites populated with their own images. This work resulted in the website Need_X_Change (now archived). Need_X_Change was intended to generate a social and technological interface—a work of technology-assisted community-based public art that would help the staff and clients of Casa Segura/HEPPAC, attain social and political “voice,” through self-articulation, and participation in the global information culture. During the second phase of my work with HEPPAC I recorded many hours of conversation with injection drug users who utilize the needle exchange. These recordings form the basis of an online audio archive titled “Blood Sugar”.

During roughly the same period of time I have also worked with the non-profit, human rights organization, Justice Now and 20 women incarcerated at the Central California Women’s Facility (CCWF) in Chowchilla, CA the largest female correctional facility in the United States. Access to prisoners and prisons by the media or human rights investigators is virtually non-existent. Several states, including California, have enacted media bans, making it illegal
for the media to conduct face-to-face interviews with prisoners that are not controlled and censored by prison officials. 

For the past four years I have intentionally circumvented the California Prison media ban, gaining access to incarcerated women by posing as a legal advocate. The conversations recorded during these visits comprise the audio database of Public Secrets [http://www.vectorsjournal.org/index.php?page=8&projectId=57]. Where Public Secrets reveals the secret injustices of the Criminal Justice System and the Prison Industrial Complex Blood Sugar examines the social and political construction of poverty, alienation, addiction and insanity in American society through the eyes of those who live it.

My collaborations with HEPPAC and Justice Now are motivated by our collective desire to create a context in which the voices of marginalized and disenfranchised persons, their stories and their perspectives can be heard in the public domain. Our objectives are:

1) to enhance awareness of the relation between poverty, addiction, and HIV transmission, and the social and political implications of the “war on drugs,” including the disproportionate incarceration and subsequent political disenfranchisement of impoverished people of color, and the inherent injustice of current sentencing laws like California’s “three strikes”

and,

2) to empower the participants to represent themselves in the media and, thus, to participate in and shape the public discourse around the social conditions and material circumstances they face on a daily basis.

For both of these groups, injection drug users living outside the norms of society in the shadow of the criminal justice system and women trapped inside the prison system, our recorded conversations are a means of critical resistance. The following is just one short example from one of the transcripts of a recording made at HEPPAC by Tanya, a woman who had just been released after nine months in county jail for possession of five dollars worth of heroine.

I’ve tried methadone – I’ve been on methadone many, many, times – off and on, off and on -- methadone is, I don’t know, I feel like it’s just the government’s band-aid for a gapping wound. Its just to pacify us and to push us away and they know where we are going to be today and they know where we’re going to be tomorrow morning and I, I don’t know what the cure is – its just an ongoing struggle and I don’t know who’s going to win, you know -- and me -- I know how heroine is, I’m going to lose every time. I’m either going to
be in the hospital or I am going to be in jail. Sometimes it takes years and sometimes it takes a month, you know? It just - it just -- and I don’t know personally, how to stop - I am a pretty strong person but I don’t know how to beat this thing -- and its because the drug is so powerful it really takes over your whole -- its not recreational where my body feels high and I’m having fun and I’m laughing and I’ll recuperate tomorrow and go to work on Monday -- Sunday rolls into Monday, you know, and it’s a drug used where you can deal with your life not to add to your life - like you drink alcohol at a party - Heroine is not like that, Heroine you get up with and you eat it like breakfast and then you eat it like lunch and it puts you to bed at night – and any comfortable feeling that you’re gonna have, any level of comfort that its going to give you – that’s how bad its going to make you feel when you don’t have it.

Through the voices of participants like Tanya, Blood Sugar’s audio database challenges us to question… “What is the social and political status of the addicted? Is the addict fully human, diseased or possessed by an “other inside”, or wholly “other” and thus rendered ideologically appropriate to her status as less than human? "Because they must fear encounters with regimes of enforcement participants like Tanya are afraid to be seen -- but they do want to be heard. Theirs are the most important voices in the discourse around addiction, public health, poverty and belonging in America. Through Blood Sugar, which in this respect follows the example of the Medea Project, a community of homeless, injection drug users "become the source of self-narration and re-symbolization, and in so doing they create the conditions under which a claim to dignity is possible."66

Palabras_ Public Secrets and Need_X_Change/Blood Sugar are examples of a collaborative systems designed to enable participants in their own social context and to produce new forms of understanding between specifically defined communities. I introduce the example of Need_X_Change/Blood Sugar, in particular, in order open a discussion of just some of the ethical questions and contradictions that can arise in attempts to embrace the aesthetics of dignity.

Practical Ethics

Needle-exchange programs are a controversial, but proven, method of reducing needle-related HIV risk behaviors among injection drug users. Although critics claim that Casa Segura’s needle exchange attracts drug dealers and
users, encourages drug use, and increases incidences of dealing and other related crimes in the Fruitvale neighborhood, where it is located, statistics show that this is not the case. Asked why people become injection drug users, Rand Corporation sociologist Ricky Bluthenthal, answers, “For most folks it’s a pretty tortured path, and it certainly isn’t based on the fact that you have a program that’s taking used syringes from current users and replacing them with clean ones. I’d be interested to meet the person who said they started using because there was a needle exchange program in their neighborhood.” Needle-exchange programs are part of a therapeutic strategy called “harm reduction.” Harm reduction is a type of practical ethics: a process of de-escalating moral conflicts to the point of nonviolent resolution, reducing potential for harm, and educating as required so that each participant in a given circumstance can effectively see the other’s point of view. Practical ethics is central to cultural democracy. I share the philosophy behind “harm reduction” therapy, which is based on a recognition of the value and dignity of all individuals, their experiences, and their perspectives. I began the work of Need_X_Change/Blood Sugar by asking “What do you think—what is your experience” of those who are rarely, or never, asked. Participants in the first phase of the project told their own stories in their own words, using their own images, texts, and sounds. I worked one-on-one with participants to teach them basic computer literacy and Web publishing. Most of the participants had never used a computer and, though they said they had “heard about” the Internet, they had certainly never been online before. They were subject to the force of the materiality of informatics without having the opportunity to touch or test it—it was a kind of glass ceiling, a pervasive ghost. Imagine every instance of “http://www.” on a sign or set of instructions as a statement in a vaguely foreign language.

One Example: A___

In this context I work at the margins of mainstream society with individuals who operate according to exigencies far removed from the comfort zones of middle-class America. This work is akin to ethnography in the sense that participants are encouraged to tell their own stories without mediation. But I make no pretense to objective evaluation, and I have no intention of leaving my subjects in the “pristine” state of “nature.” This work is activist, and is meant to change the material and social conditions of those with whom I work, not to preserve them as they are. My goals are to avoid representation (a primary agent of domination) and not to attempt to speak for others, but to allow them to speak for themselves. This work provides an alternative context for self-articulation and collective speech to an extremely marginalized community.

In 2000, I started attending the Tuesday night needle-exchange in Fruitvale every week. It took nearly a year of weekly contact to develop a working relationship with A____, a forty-two-year-old heroin addict. A____ is a
substance abuser with mental illness, commonly referred to as "dual diagnosis," meaning someone with one diagnosis of mental illness and a second diagnosis of substance abuse disorder. As Lonny Shavelson explains in Hooked, his excellent book on failures and challenges of the drug rehabilitation system, the trademark of dual diagnosis clients like A___ is "disorder." A___ lost her social service insurance and Medi-Cal because she failed to keep required appointments. Insisting that a dually diagnosed client like A___ keep a complex sequence of appointments, on time, to have an opportunity to get access to treatment, is "like ordering swimming students to float on their first day of class—they are likely to drown—making further instruction difficult. Without Medi-Cal, A___ is unable to afford her prescribed mental health medications or methadone. Without free methadone doses, she resorts to prostitution to support her drug dependency. She is an easy target for police given her prison record, her history as an addict and prostitute, her mental health problems, and her homelessness. Our work is often interrupted while she is incarcerated for one reason or another.

In order to work with A___ and others in similar circumstances, I tried to help her engage the institutional infrastructures that might address her immediate, material needs. I felt I had to try to help her save her own life. I stipended her with grant funds and helped her reconstruct her social service network by offering her transportation, attending appointments with her, speaking on her behalf in court, and coordinating her work on the project in order to facilitate appointments with mental health and case workers at Casa Segura. During this period, A___ wrote, designed, and published approximately fifteen Web pages. The project she defined for herself was threefold: first, to make a political statement about the nature of addiction and in support of harm-reduction therapy; second, to relate the story of her life; and third, to keep an online journal as part of her attempt to stabilize her mental health.

Infrastructures

Building a collaborative relationship in this context requires developing social, institutional, and technological infrastructure. A___ and several other participants published a number of Web pages after learning to use a standard WYSIWYG HTML application and image editor. This required considerable effort for A___, given the extremity of her circumstances. Many of Casa Segura’s clients were not able to make the sustained commitment required to benefit from this type of training. Most continuously live on the edge of desperation, like A___, in need of housing and food as well as methadone treatment or clean needles, and some, like J___, then a seventy-three-year-old heroin addict (now deceased), were relatively stable and committed but not necessarily capable of learning how to use complex, proprietary software. I used existing technology (for example, free Weblog interfaces provided by blogger.com) and some simple form templates built on the ZOPE open-source content-management system.
But others, like J____, for example, had to first learn how to use a keyboard. Clearly, special intuitive and nonprescriptive tools are needed to help this type of user community have a voice in information culture. The principal question is this: How to design interfaces that will solicit direct and meaningful responses from inexperienced users without overdetermining the results. This problem is simultaneously technical, aesthetic, and political. I am convinced that some sort of frame is necessary to identify a field of potential—an open space allowing and provoking meaningful responses from participants who are so unaccustomed to having their perspectives valued or even queried. I am concerned, however, that the technological interfaces and the power relations implicit in the social and institutional context may combine to repress or prescribe, to enforce normative values, and impose master narratives. (For example, participants are called “clients” by Casa Segura staff, which represents a particular type of institutional relationship. Many of these “clients” have difficulty accepting the possibility of collaboration and self-articulation and strive to give “appropriate” responses instead of direct or honest ones. I see these individuals as “participating subjects” and try to get them to see me as just another participating subject.)

Building social and technological infrastructures for cultural democracy is a complex challenge. Need_X_Change provides a kind of case study that embodies some of the complexities, questions, conflicts, and contradictions inherent in this challenge. I would like to address only two of these in closing: first, to pose the question of context or appropriate technology, and finally, to return to the problem of aesthetics.

The Question Concerning Technology

Is the Internet “appropriate technology” with which to enable this community? As noted above, Need_X_Change was designed to empower participants by helping them to achieve social and political citizenship through self-representation within the global information culture—to engage and annex “informatics” for a new collective participant-subject. Self-articulation is only one step in attaining “citizenship.” Many of the clients of Casa Segura live on the street, have no form of official identification because they have no fixed address, and thus have no access to basic civic and social services. They are invisible in the context of the “materiality of informatics.” This absence in the virtual world has serious implications in the physical world. The complex struggle over civil liberties and social rights in electronically mediated information space is materially different from the one on the street.

Access isn’t everything. There are ethical issues to resolve. The political assumptions embedded in the design of digital tools reinforce the boundaries between the technologically and economically enfranchised and disenfranchised. I hate the idea of training homeless, dually diagnosed, needle-exchange participants to use
proprietary programs like Microsoft Word in which the spell-checker resolutely insists on changing "underserved" to "undeserved. This is an example of the political subtext of digital design.

The Nature of Beauty

A context provider committed to an activist aesthetic of dignity must ask after Foucault: How can a discourse circulate—who can productively appropriate it?—"what are the places in it where there is room for possible subjects?" and "Who can assume these various subject functions?" It does, in this sense, "matter who is speaking." 71

In what you have just read, I have traversed a field of data and activated a set of associations: the death of the author and the role of the observer; the aesthetics of the database; parallels among complex social and collaborative systems; social aesthetics in the context of the materiality of informatics; the emergence of the collective-narrating-participant-subject; and the philosophy of an activist aesthetics of dignity. I hope these associations emerge as a new ontology of aesthetics that will change and transform the structure of that field.

Now I want to return to the question: What aesthetic criteria can be used to evaluate systems and infrastructures (like the Medea Project, Need_X_Change, and Subtract the Sky) that support cultural democracy? Are the criteria of an aesthetics of dignity "saving lives" in some form? In other words, "Is it art or is it social work?" I would like to quote Rhodessa Jones here, who has been known to say that "great art should also be great social work." 72
5. Ibid., 103–4.
6. Ibid., 108.
12. Werner Heisenberg was part of the Copenhagen school of quantum physics and discoverer of the "Principle
of Uncertainty,” the “hidden variable” hypothesis, which claims that some hidden variable remains to be discovered that will ultimately explain away Heisenberg's dilemma.

13. I refer to the “hidden variable” hypothesis, which claims that some hidden variable remains to be discovered that will ultimately explain away Heisenberg's dilemma; or around the belief that there is no hidden variable awaiting discovery but that uncertainty is fundamentally a part of how nature works. In other words, the behaviors of the particles themselves are uncaused and unknown to them before they move.


15. Artificial Life is the study of artificial systems that exhibit behavior characteristic of natural living systems: self-organization, adaptation, evolution, coevolution. This includes biological and chemical experiments, computer simulations, and purely theoretical endeavors. Processes occurring on molecular, social, and evolutionary scales are subject to investigation. In the field of computer science, Artificial Life researchers model evolutionary and emergent behavior using genetic algorithms within graphical environments. For more information on artificial life research, see Steven Levy, Artificial Life (Random House, 1994). Exploring Emergence, an "active essay" by Mitchel Resnick and Brian Silverman of the Epistemology and Learning Group at MIT’s Media Laboratory at http://lcs.www.media.mit.edu/groups/el/projects/emergence/index.html, presents examples of emergent behavior and cellular automata models.


20. Ibid., 119.


24. My thanks to artist Bill Seaman for the term “interauthorship”.

25. Foucault, “What Is an Author?” 120.

26. For more information, see http://www.geocities.com/CollegePark/Campus/8297/bakhtin.html and http://www.utm.edu/research/iep/b/bakhtin.htm


29. Allan Jeong, quote from “Theoretical Frameworks for Learning with Group Discussion & Collaboration.” This online text (no longer available) provided a summary of social constructionism as a theoretical framework that informs much of the research and the practice of collaborative learning, including an explanation of Bakhtin’s dialogic process: “The theory of dialogism assumes that no individual ever writes alone because writing is the result of our interactions with the world. To write and construct new knowledge and meaning, we must engage in a dialogic process where words of an individual are examined and primarily understood in relationship to the words of others. Fundamental to the dialogic process is that all possible meanings of words interact, and possibly conflict to affect and change future meanings of words. Socializing the writing context contributes to this dialogic process by bringing voice to thought.”


31. I refer here to the type of aesthetic object made famous by the French painter and conceptual artist Marcel Duchamp, which he named “found object.” Found objects are anything found in the world, often considered
unauthored, and definitely not created by the artist who uses such objects, and simply designated as works of art by
the artist. My term "found systems" follows in this same tradition.

32. Sainte-Chapelle was commissioned by Saint Louis (Louis IX) in 1242 to be a royal chapel and a shrine for the
relics of Christ's Passion, including the Crown of Thorns. More than 6,400 square feet of stained glass occupy the
walls of the upper chapel. To justify his claim to the royal throne, Saint Louis used Sainte-Chapelle and the holy relics
as prominent symbols of his authority. This is most evident in the content and placement of several of the stained-
glass windows. The windows are arranged starting from Genesis in the northwest corner of the chapel, and all but
one lancet depicts a biblical story. Genesis, Exodus, Numbers, Joshua, Judges, Isaiah and the Jesse Tree, the
Childhood of Christ (Saint John), The Passion, Saint John the Baptist, Daniel, Ezekiel, Jeremiah and Tobias, Judith
and Job, Ester, Kings, and the final lancet depicts the history of the Relics of the Passion. At the west end a rose
window depicts the Apocalypse. The unusual thing about the windows is that the placement of the book of Numbers
is directly over the King's stall (and out of sequence with the books of the Old Testament). Every scene from
Numbers depicts the coronation of a prophet or king. The story of the relics demonstrates St. Louis's right to the
throne in that by allowing Louis to have custody of "the complete set," the pope indirectly was blessing his authority.

33. See Fredric Jameson, Postmodernism, or, The Cultural Logic of Late Capitalism (Durham: Duke University Press,
1991), following explanatory quote can be found online at
http://xroads.virginia.edu/~DRBR/JAMESON/jameson.html#return13. "When that relationship breaks down, when the
links of the signifying chain snap, then we have schizophrenia in the form of a rubble of distinct and unrelated
signifiers. The connection between this kind of linguistic malfunction and the psyche of the schizophrenic may then be
grasped by way of a twofold proposition: first, that personal identity is itself the effect of a certain temporal unification
of past and future with one's present; and, second, that such active temporal unification is itself a function of
language, or better still of the sentence, as it moves along its hermeneutic circle through time. If we are unable to
unify the past, present, and future of the sentence, then we are similarly unable to unify the past, present, and future
of our own biographical experience or psychic life. With the breakdown of the signifying chain, therefore, the
schizophrenic is reduced to an experience of pure material signifiers, or, in other words, a series of pure and
unrelated presents in time."
Nature Demiurge (Foundation Cartier pour l'art contemporain, June–July 1998). Composed of sixty-nine boxes, Jacques Kerchache’s insect collection is part of a tradition that dates back to the Renaissance, when, “spurred on by the great voyagers and navigators, collectors created curio rooms in which fauna, flora, minerals, fossils, skulls, shells, and insects were classified and arranged.” Claude Lévi-Strauss rightly observed: "A bird, a beetle, a butterfly invite the same rapt contemplation that we reserve for a Tintoretto or a Rembrandt." In Jacques Kerchache, The Hand of Nature: Butterflies, Beetles, and Dragonflies (London: Thames and Hudson, 2001).


See "Ein Kunstwerk, das lebt und stirbt!" an e-mail interview with Marta de Menezes by Simon Hadler at http://www.kultur.orf.at/000904-4098/4085txt_story.html.

Marta de Menezes, "The Laboratory as an Art Studio," presented in August 2002 at a symposium, “The Aesthetics of Care? The artistic, social, and scientific implications of the use of biological/medical technologies for artistic purposes." The papers, with titles such as "The Workhouse Zoo Bioethics Quiz," "Recombinant Aesthetics," "Cute Robots / Ugly Human Parts," and "Test Tube Gods and Microscopic Monsters" may be read in the proceedings of the symposium, sponsored by Symbiotic A: The Art and Science Collaborative Research Laboratory and the Institute of Advanced Studies, University of Western Australia. Menezes's butterfly-wing paper is on page 53 of the PDF document linked here.


See http://online.sfsu.edu/~art511_i/public_html/jamesmaster/jamesproject1f/pages/about.html.

Aronowitz, "Literature as Social Knowledge," 142.


[41] Nicholas Mosley, Hopeful Monsters (Elmwood Park, Ill.: Dalkey Archive Press, 1990), 293.


43. [44] The Quilts of Gee’s Bend at the Corcoran Gallery of Art Web site,


48. [49] Peter Marzio, Foreword to Gee’s Bend, 9.


50. [51] The Quilts of Gee’s Bend at the Corcoran Gallery of Art Web site,


51. [52] There is, no doubt, a connection here to modernism’s appropriation of traditional African artifacts. While the quilters are not likely to be overly influenced by modernist aesthetics, their audience is.


Foucault, “What Is an Author?” 119, 101. “Beckett nicely formulates the theme with which I would like to begin: ‘What does it matter who is speaking,’ someone said, ‘what does it matter who is speaking.’ In this indifference appears one of the fundamental ethical principles of contemporary writing (écriture). I say ‘ethical’ because this indifference is not really a trait characterizing the manner in which one speaks and writes, but rather a kind of immanent rule, taken up over something completed, but dominating it as a practice.”

General information about the Medea Project was gleaned from the project Web site at http://www.culturalodyssey.org/ and from exposure to several videotapes, particularly Larry Andrews's documentary of the Medea Project workshop process.


Warner, Mythic Proportions, 1.


Need_X_Change is a collaboration with the staff and “clients” of the HIV Education and Prevention Project of Alameda County and Casa Segura, the “safe-house.” The project has been supported by the Creative Work Fund of
the Columbia Foundation and the University of California Institute for Research in the Arts. [XXX this is actually in the text so probably not needed here]


67. [68] Because Casa Segura provides needle exchange, it is politically embattled and continuously attacked by its district city council representative and others interested in the “economic development,” or gentrification, of the Fruitvale neighborhood of Oakland, where it is located. There can be no better example of this fact than the arson perpetrated against the safe house on New Year’s Eve in 2000. This horrible act of violence, thought by many to have been sanctioned, if not solicited, by the district city council representative, demonstrates how serious the problem is. After the fire, Casa Segura struggled for years to find a new home in the neighborhood. During this time the the Need_X_Change project computer lab was located in administrative offices ten miles from the exchange site, where most participating clients lived. It was extremely difficult for participants to make and keep appointments at this site and eventually, first the lab, and then the office itself were closed. The project was suspended for several years due to these circumstances. In 2005 Casa moved into new, permanent facilities and the project was re-started in the form described here. We had come to the conclusion that the technical training piece of the original proposal not entirely viable for most of Casa Sequra’s “client” population and much too ambitious in the institutional context of HEPPAC. We decided to shift the entire focus of the project toward getting the voices of the clients, their stories and their perspectives into public media space by creating a series of audio recorded conversations that could be disseminated online and via radio. Needle exchanges are still held weekly in tents in a cul-de-sac under Highway 880 in Fruitvale, near the old safe house building, which has never been repaired.


69. [70 – I would like to just delete this note as the URL is given in the text] See http://blogger.com.


71. [72] Quote from video documentation shot by Sara Warner of the Medea Project performance, “Can We Get There by Candlelight?” http://complit.rutgers.edu/swarner/movies/mp.mov.