

*Scientific expertise among specialists must be
accompanied by public understanding or
problems will surely arise.*

—C. Thomas Caskey

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Transgenic Production and Cultural Resistance: A Seven-Point Plan

1. Demystify transgenic production and products
2. Neutralize public fear
3. Promote critical thinking
4. Undermine and attack Edenic utopian rhetoric
5. Open the halls of science
6. Dissolve cultural boundaries of specialization
7. Build respect for amateurism

Part 1: Objectives

Given the complex situation of fear and anxiety about transgenics that is being carefully prodded with utopian theological rhetoric, we come to the question, what can resistant cultural workers do in such an environment? What are the objectives? For those ready to engage this struggle in the biopolitical realm of representation, the work appears to be overwhelming. There is no doubt that resistant cultural practices and the representation that emerges from these processes is minimal. The hopeful side is that representation originating in the biotech industry is not doing that much better at calming the public (although, as will be described in Chapter 4, material initiatives on the molecular level are moving along in an almost uncontested manner in the US, and only with modest friction elsewhere). Deep suspicion and mistrust still reside in the public sphere. This flow of affective social current is the point of intervention; however, one must at the same time be careful not to fan the flames of emotion that lead to knee-jerk or absolutist activities. The aim should not be to intensify transgenic fear in the hopes of solidifying rejection on a nonrational foundation, but to counteract it with information that makes informed opposition not only possible, but probable. The first goal should be to neutralize the fear that comes from the centuries-old ideology that the monstrous emerges out of recombinant impurity. Contestational representation needs to contain complex yet accessible information about the nature of biotechnological initiatives, as opposed to the often reactionary green politics that categorically denies any use for biotechnology, or the happy-faced, empty rhetoric of the biotech

industry. The standard job of demystification is in front of us, and through this process we hope to achieve the neutralization of fear.

Some may object that resistant culture is doing the work of industry for them. After all, it is to the benefit of capital that the public does not fear its production techniques and products. Certainly any corporation would prefer a public that is open-minded and willing to give the benefit of the doubt to any given production process or product line, and to not have to spend public relations funds on hiding or misrepresenting their true nature. The classic example of the hiding strategy is clear when we think of all the Americans shopping at major grocery chains who are nearly oblivious to the fact that nearly 100% of the packaged foods that they are purchasing is genetically modified. This is the extent to which industry has managed to keep the intensity of the GM transition under wraps. In the end, capital has no desire for public education on such matters (perhaps some indoctrination would be useful). All it seeks is for the public to feel a sense of security that will neutralize any doubts along with fear. Consciousness raising, on the other hand, removes fear through the realization of individual agency and collective power—the ability of people to understand and thereby affect situations allows individual participation in shaping the policies, laws, products, etc., concerning the biotechnological. In the pedagogical process, only the fear dissipates, the doubt remains.

But the real question is not one of education versus spectacle. The real question comes as the neutralization occurs. Once a vacuum in biopolitical space is left by the

reduction of fear, what will fill it? Will it be critical discourse or will it be the absolute of the commodity? To be sure, the corporate revenues are available that are necessary to launch whatever type of campaign may be needed to sway the public. However, if enough doubt remains, and people have the ability to formulate their own questions, then some of them who will productively and intentionally resist by whatever means they believe appropriate will maintain a contestational discourse. Its intensity will vary considerably, and for the most part it will be weak and underrepresented at this point in time, but it will be a beginning.

However, to ask good questions, one needs the language to do so.

The means to direct public resentment, mistrust, suspicion and even hostility in a productive way requires that each individual know precisely why s/he resists. Hence, the construction or recuperation of language(s) that adequately describes the contested situation from a minor position(s) becomes a necessity. The first step, in the case of transgenic production, is a nihilistic one. Utopian Edenic rhetoric must be revealed as the fraudulent clap-trap that it is. To appropriate public ignorance and fill this absence with a simulation of mystery to enhance one's authority and to inspire awe over the mundane is worthy only of the lowest carnival, spirit-knocker hucksters. What makes matters worse is that this rhetoric is not used only by industry promoters, but by scientists and artists as well. Anything that can be done should be done to expose the social separation and solidification of authority reinforced by their claims of being new creators and bringers of plenitude to the masses. Plenitude for the world is not just around the corner. The corporate claim that it is producing the means

“to feed a hungry world” (a motto that has sunk deep into food economy and is used by corporations, farmers’ associations, food distributors, even charitable organizations) is a falsehood. The world could be fed before biotechnological means were available. For more than half a century, starvation has been little more than a military tactic to bring rogue nations into line or eliminate excess populations, and will probably remain so long after new, more efficient means of food production are in global use.

Edenic rhetoric brings its own inversion—the complaint that the class of people who use it “are playing God.” This rhetoric of spiritual trespass is as dangerous and as authoritarian as the claim of the Secular Creators. Not only do both of these rhetorics reinforce one another, but they deflect the conversation from the critique of production, commodification, and value onto the trivialities of ethics and morals—a circular sign exchange that continuously flows nowhere. Meanwhile, the piratical exchanges of capitalist political-economy continue relatively uncontested. A key example of this deflectionist strategy is *still* cloning. Cloning is presented as the ethical issue of the day and the cause of considerable public discussion due in part to the media coverage (the exchange between the media and its consumers is now looping in terms of causality). Cloning is a completely underdeployed biotechnology. The knowledge base for it and its applications are modest. On the other hand, consolidation of the food chain by corporations affects at present 40% of people on this planet, in addition to having a direct linkage to eco-piracy and molecular and environmental pollution. No need for ethical discussion here. Exploitation, domination, and what to do in the face of it are the topics needing discussion

and action, but at present the ethical black hole of cloning has the spotlight.

When Edenic rhetoric can be understood in general as the oppressive language that it is, resistant culture can move to the second part of the initiative, and that is to replace this rhetoric with a critique of power that reveals the relationships of individuals to biopolitical authority and the consequences of these relationships. Providing simple, practical tools of risk assessment that are grounded in science and placed within historical and cultural context is the easiest way for doubt to be transformed into insightful critical questions. As always, the constructive task is far more difficult than the destructive one.

The maintenance of mystification takes more than just a rhetorical formation. The question of access to scientific institutions is another significant element. To take an extreme example, Australia has eliminated nonspecialist intervention in transgenics by sealing off the institutions involved in such investigations. (Perhaps this was done in good faith, but CAE will not be questioning that in this essay.) Given Australia's history of ecological problems due to release of alien species into the environment, there was a public outcry for caution and care with transgenic initiatives. This idea is all well and good; transgenic investigation should proceed with caution. The problem is that the rules for handling GMOs became so strict and regulated that for all practical purposes the public can have no contact with them or the physical apparatus that produces them. The positive side is that the likelihood of accidental release is very low; however, the downside is that what is going on in the labs will

forever be a mystery. Creatures cannot come out of the lab, and people cannot go in without going to considerable difficulty. The consequence is that the public remains ignorant and is only comforted by a feeling of security. Reasonable consensus exists among scientists that these precautions regarding physical containment and importation are excessive; however, they are necessary to keep the public from panicking. Education (liberation) about transgenics could have the same effect, but security (repression) was seen to be the better (most efficient) option. The political result is that the power of transgenics and its knowledge base remains in the hands of bureaucrats (the regulating agencies) and the scientists, and therefore is outside democratic process. Just as bad, the bunkers allow for rumors and conspiracy theories to spread because no one has experiential evidence to contradict popular fantasy. Only those within the bunker can dispute it, and they are dismissable because they are representatives of the conspiracy itself.

While Australia may be the strictest nation in this regard, the repressive model is fairly representative of institutional positions worldwide. (The economic reasons for this situation will be described in Chapter 4). The goal for cultural resistance is to create temporary public space where education and intersubcultural labor exchange can occur. Opening the knowledge bases and dissolving boundaries of specialization is a primary goal. Creating a space away from Edenic rhetoric becomes a necessity. Under such conditions, dialogue can occur that is grounded in the present rather than in utopian or apocalyptic projections for the future. Understanding and consensus arises out of interaction, but for it to

actually happen, respect for the knowledge bases of all participants is necessary. For this reason the space must be one where the authority of the scientific personality is not so powerful. The hierarchy of expert over amateur has to be suspended in this context. If experts have no respect for the position of amateurs, why would they come to a place where dialogue is possible? But more significantly, why would amateurs come to a space of monologue where the experts dominate? This separation has to be dissolved through interdisciplinary facilitation: This is a service that cultural workers can provide and have a history of providing.

The final question is where should these spaces be created? The easiest locations to use are spaces designed for cultural activity (art museums, natural history museums, ethnographic museums, etc.). These spaces are useful and provide a legitimacy that is sometimes necessary; however, they cannot be used exclusively nor can they be overdeployed. Other venues have to be appropriated. Spaces that lend themselves to overlaps in interest in the organic are tremendously fruitful. Grocery stores, farmers' markets, zoos, parks, fairs, and so on are locations that have a participatory dynamic built in, and where, out of everyday life association, people are predisposed and sympathetic to discussions of biological issues. They are often spaces where people feel they have a voice (unlike so many cultural institutions). These spaces should be exploited for their dialogic potential. If they can be created with the seven objectives in mind, there is a chance that a complex, tactical countersymbolic order could be established, and if fortune is with us, even thrive.

Part 2: Representational Pitfalls

Monumentality

Anyone who has attended digital media arts festivals over the past decade should be shocked by the replication of the monumental as a primary criterion in deciding the value of a given project. A work has to be big; it has to be overwhelming; it has to be global; and if one isn't doing a BIG project, it is somehow an insult to computer capability, hypertextuality, interactivity, and nonlinearity. If the project does not possess monumental scale or volume, it's considered just the work of a common user. This attitude is supported by the structure of festivals, which all want the biggest attractions; by the prize system, in which big is a necessity just for entry; and by the granting system, which seems to function in accordance with monumentality regardless of whether the judges are specialists or nonspecialists. This prejudice in favor of scale is evidently a trace of the traditional art world replicating itself in a new territory. In order to intervene in art history, monumentalism has always been a good tactic, but in the case of electronic media it has become the only tactic. What makes this situation very odd is that electronic media research has not progressed to the point where monuments are really appropriate. This year's monument, after all, is next year's dinosaur. The technology changes too fast, and monumentalism requires technological stability if it is to stand the "test of time." Perhaps this is putting the cart before the horse: We are attempting to write

multivolume encyclopedias before writing an article that can be adequately understood.

As the field of the digital expands into wetware, the replication of monumentality as the equivalent of quality is continuing (albeit at a slower pace), and with this expansion come the same disappointments—primarily product (in every sense of the word) before process, and scale over concept. The emptiness and lack of experimental spirit in new biotech work is depressing, but not surprising. The means to try to cover the emptiness of content by the use of scale are all the more amusing. Given that much of the work is in the molecular and cellular world, how does one make that big? Video projectors attached to microscopes become necessary, and any other type of technological superstructure that can fill a room with an image. The other option is to construct symbolic monumentality by making monstrous, heroic claims such as that one is “creating life.” The saddest part is that these claims are often believed by less informed members of the public. In the end, what an audience gets is a big product demo (much the same as with ICT), in which standard lab techniques are dressed up with a slick design job and parade themselves as new breakthroughs in cultural practice.

The difficulties do not stop there. The monumental also compromises the work of the content-minded. The two are almost mutually exclusive, not because an electronic monument cannot have content, but because the wowie-zowie effect of the scale overwhelms any content it may have. (When the project becomes a dinosaur, the content reappears, and can potentially save the project from extinction.) Spectacle can overwhelm even the most critically

minded, and in light of the mystery of technology for the nonspecialist, and the heroic hype given techno-explorers, audiences are primed to focus on spectacular entertainment even when conceptual value is available.

Finally, one must ask, is this structural replication of monumentality desirable (at least in its current form)? Politically, for anti-authoritarians, monumentalism is generally undesirable because it tends to transform the specific into the general (if not the universal). With electronic media under the domination of white males (with perhaps the exception of video, the financial runt of the litter), it's hard to support this new wave of monumentalism. At the same time, there is a technical research component to monumental works that offers a shred of redemption. If no one experiments with monumentalism, the possibility of alternative technical options will be diminished.

Formalism

Formalism presents a second possible pitfall. Recently invented imaging technologies designed for biological investigation and the images derived through their use have inspired a host of new art objects that replicate or abstract the forms of the micro and molecular landscape. In addition to traditional formalism, another type has appeared that is based in the re-presentation of the processes that form organic matter, ranging from tissue cells to GMOs, and then products that are derived from these processes are often displayed. In both cases, functionality is stripped from the process/object and the ideology is hidden in order

to skew experience toward an enveloping aestheticized perception. The decontextualization turns processes that are fascinating in and of themselves into a banal series of statements. How much more art is needed about the beautiful or sublime qualities of nature? The only reason that it can even be stated yet again without people breaking into laughter is because the novelty factor is so high. Artists forming life itself to make a statement about life—what a concept! And what a great sleight of hand—mundane cookbook recipes of science that have a profound effect on knowledge, methodology, and material culture are transformed into transcendental voodoo. Such activity is mystification on an intolerable scale that directs viewers away from an understanding of their world in general and away from an understanding of the flesh machine in particular; rather, it redirects discourse into the disempowering realm of the abstract. The bio-commodity is beatifically naturalized, becoming an enchanted/haunted process/object that accepts the projection of sublimated desire and is ready for consumption. The end-game of this style of production is, of course, recuperation by the corporate state.

CAE hopes that we are not misunderstood on this issue. We are not arguing for the elimination of visual pleasure. Tactically speaking, it may not always be useful to produce such sensations, but pleasure is an option that should be engaged whenever possible, and that is the grand majority of the time. The modernist split between beauty and pleasure on one side and ideology and critique on the other is a false dichotomy. Or, to put it in concrete terms, we do not support the John Henry Mackay model of production in which his love poems are written on a personal level for

beauty's sake, and his agitprop novels are written on a social level for the sake of the proletariat. CAE is in no way suggesting that all cultural action in regard to biotech return to the all-too-often repulsive visual language of so much activist art. Capital should not have a monopoly on the attractive or seductive image, nor should resistant culture give the impression of being aesthetic puritans. What needs to be avoided is the idea of beauty for its own sake, for beauty is a tactical choice that can aid the critical dimension of a work or take away from it. After all, beauty is no more than a cultural construction that can be manipulated within given parameters. The idea that beauty is a supreme quality and that other qualities should be deintensified or eliminated from a work by reducing it to form is the problem. CAE is suggesting a rhizomatic model in which visual pleasure is not in opposition to critical discourse, but harmonizes with it on a multivariate plane of immanence. Put negatively, the rejection of transcendental categories is what is of concern to us. There is plenty of pleasure to go around within that which is common, and it does not have to exist at the expense of the transparent representation of power relationships within a given process/object.

Science Fiction

CAE would like to state at the outset here that we are not attacking science fiction as a legitimate literary genre, nor are we attempting to say that it is any better or any worse than any other genre. In fact, we are only interested in some basic narratives that would make many sci-fi writers

cringe. Our concern in this section is only with the general usage (in art, film, TV, text, etc.) of biological sci-fi narratives in a tactical sense. At times, sci-fi has been extremely useful to resistant culture, particularly in the most repressive times. Ideas and discourse that authority deemed subversive could easily hide in sci-fi fantasies. A creator had plausible deniability. S/he could always insist that s/he was just telling a story, and that it had no allegorical intent nor even that it suggested what could not be spoken. For example, sci-fi was used tactically and exceptionally well in the 1950s as a means to speak about McCarthyist activities and tendencies. Of course, it was used by the other camp as well to promote military initiatives and further red paranoia. Given the current social/military environment, the need for tactical sci-fi may come back again, but there are some down sides to this very popular choice in cultural models.

While sci-fi has generally been a great ally in eliminating Edenic rhetoric, it has not done so well at disassociating itself from the recombinant and the monstrous. Perhaps we are asking too much here, since it is such a profound cultural code. Without it, is it even possible to have monsters (in the broadest sense of the term)? The monstrous seems prominent in many of the metanarratives involving mutation, invasion, and all types of biological corruption (technological, pharmacological, genetic, etc.) that are necessary for conflict in the sci-fi narrative. Replayed at a alarming rate (particularly at the pulp level and in Hollywood), the positive soul of the pure human either falls prey or finds a way of protecting he/rself from the agents of the above listed metanarratives. The sci-fi replication of this narrative of good and evil is a reinforcer

of imperial ideology that justifies bourgeois constructions of “human” and “other.” Such drama brings those who engage it to high mythic narrative which in turn functions as a deflector that moves considerations away from the pragmatic and into first principles and ethical/moral conundrums. Again, there is a tendency for the transcendental to assert itself at the expense of the plane of immanence.

The second concern is with the temporal. Works of sci-fi tend to locate themselves in the future to give them that extra bit of credibility. And why not? The future is open to any type of speculation. Any narrative moving between apocalypse and utopia is welcome. The future is a zone of free speculation, and that spells fun for the producer or participant. The down side is that such romps take away personnel who are needed to decipher the present. On issues like biotechnology in general and transgenics in particular, so much of the present is misunderstood, distorted, or hidden, that tactically speaking, it would be better for resistant cultural producers to focus on these difficult areas. The future appears to be overdeployed in a cultural sense (especially if we throw in the futurologists), while the present begs to be understood through accessible cultural action (the academics are not much help here). Many will probably say that through future fiction, we come to understand the present. Perhaps in a transcendental sense that is true—metanarratives of humanity or moral principles come into focus (partly because this is how people have been trained to read the future), but in terms of mundane everyday life process the future as the setting for these works is very inefficient in helping people learn anything. Moreover, the wild speculations that the talented are able to frame as plausible can end up fanning

the flames of fear without injecting any actual information that could transform nonrational energy into political action. For the sake of ease and efficiency, CAE believes that sci-fi narratives are not the best of tactical choices at the moment.

Conclusion

Consciousness raising is generally a matter of aiding people in constructing new grids of interpretation that allow them to see the exploitive structures and processes around them, and to help them understand that their subjectivity does not have to be determined by these negative influences. To do this, activists, organizers, political artists, etc., could draw on the life experience of those undergoing the pedagogical process. Whether it is class relationships, worker exploitation, or prejudice and discrimination, the life experience of the individuals in these situations contains the means to understand how these structures and tendencies functioned and the ideology that justified and maintained them. With biotech in general and transgenics in particular, life experience is minimal or very indirect. Hence, while agents of cultural resistance may have clear objectives and know the pitfalls that lie in front of them, they are left with the difficult pedagogical problem of how to produce direct experiences for people that reveal the urgency of countering the molecular invasion. Experience and pedagogy (doing and thinking) have to occur simultaneously, thus making dialogue and individual participation key elements in resistant cultural initiatives regarding biotech. Simultaneity is not common in the pedagogical process. Usually one experiences an action in the world,

and then can critically reflect upon it in a pedagogical space. These two stages now have to be compressed into a single experience. The space of everyday life and the space of pedagogy must become one and the same to make digestible, accurate information immediately connected to critical reflection. This is the new and experimental dimension that needs to be part of cultural projects that address key issues that are disconnected from everyday life experience.

Capital has chosen commodity envelopment as the best means to introduce biotech (by the time the people know what is going on, they will have internalized a feeling of dependency on various product lines, and will not want them taken away or regulated). The spectacle of biotech is still gentle and cautious, so there is a small chance for education to triumph over indoctrination on the issues. Hopefully, this opportunity will not be wasted.