

## **Green Goo—Life in the Era of Humane Genocide, Nick Szabo**

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Green Goo --  
Life in the Era of Humane Genocide

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### Central Planning for Ideal Populations

Environmentalists have ambitions far beyond what they can seemingly achieve. Take, for example, the Wildlands Project, which contemplates confiscation and restoration of 50% of the land area in the U.S. lower 48. Even more ambitious and controversial are the ideal "steady state" or "sustainable" population numbers promoted by many ecologists. For example Alan McGowen, a prolific contributor to sci.bio.ecology, promotes his long-range plan for reducing human population nearly two orders of magnitude, to 100 million people, and constructs an elaborate ecological and ethical case to justify this strongly pursued goal. The impact of either the overall or differential population reduction on human economics and civilization? Irrelevant to many environmentalists, compared to their goal of creating an idealized Garden of Eden on earth. At the extreme we have groups that openly promote the excision of "human cancer" from the revered Gaia. Are they merely dreaming, or do tools exist to make their dreams come true?

### Viral Coercion

Much has been made of the speculative possibility of "gray goo" -- self-replicating nanomachines that consume most biological and industrial materials, destroying civilization in the process. Gray goo relies on very advanced versions of postulated atomic-precision robots capable of fine, very-high-frequency control over chemical reactions, and is thus theoretical possibility in the distant future. But another weapon of replication and destruction is being created in biotech labs today, for the specific purpose of population control. These viruses, designed to eliminate species from entire continents and potentially the entire planet, might well be called, reflecting their ecological purpose, "green goo".

The first use of genetically engineered viruses for population control has been announced in Australia. Biotech engineers say they can completely eradicate two species of mammal, the red fox and the European rabbit, from entire continent.

Previously viruses were imported from other continents for this purpose. In 1859 overeager British colonizers introduced the rabbit and red fox to Australia. Rabbits soon became a major pest. As early as 1888 Louis Pasteur suggested killing off the rabbits by deliberately introducing a disease, and in 1950 somebody actually tried it.

Rabbits in Brazil carry a harmless virus called myxomatosis, spread by mosquitoes. But when European rabbits were exported to Brazil, over 99% of them died from this disease. In 1950 the virus was introduced into rabbit warrens in a remote region of Australia. Ultimately the disease spread through Australia, moving most rapidly when moist conditions or standing water encouraged the mosquito vectors. At first, the 99% death rate held, but the rabbit and virus population co-evolved to a nonlethal equilibrium. Even so, over 80% of all the rabbits in Australia had been killed before the epidemic played itself out.

#### Humane Genocide

The virus currently being genetically engineered to eradicate the red fox in Australia can produce more complete results in a more humane manner. The virus turns female red fox's immune system against male sperm, rendering females infertile. This may be the first truly effective green goo. Because it is fine-tuned by genetic engineering, and because new viruses can be designed and released to take up where the last virus petered out, these new viruses can overcome genetic adaptation of the target population and reduce it to extinction. Moreover, the creation of such viruses is well-understood technology. Deploying green goo targeted at human populations -- either specific races or our entire species in general -- would be, like the red fox virus program, a relatively simple and inexpensive biotech project, well within the capabilities of hundreds of biotech labs around the planet.

Because sterilization is a far more humane form of genocide than gas chambers, some of the ecologists and Green activists might have little objection to releasing engineered viruses to reduce human populations to their "ideal" level. The humane nature of a sterility virus also makes it far more effective than traditional forms of genocide, which involve visible, violent death and thus stir the passions of people into resistance. A sterility virus not only blocks human reproduction, it also makes an end run around the genetically evolved emotions which motivate such reproduction. The only defense against such a virus is a rational assessment of its consequences, and the ability to motivate extreme, prolonged defense based on that emotionally neutral knowledge.

## How Can We Fight Green Goo?

Green goo might take many forms -- retrovirus, herpesvirus, RNA virus, DNA virus, protein virus (prion), etc. It might take the form of a humane, very effective sterility virus, or a cruder disease which destroys both the fertility and the health of the victim. At the terroristic extreme, but less effective for the purposes of genocide, it might produce prolonged illness and death, like HIV. Biotechnology has now created a wide variety of viruses for the purposes of research, genetic therapy, and now population control; but it has never been able to cure any kind of viral disease. Sometimes vaccines have been developed within a few years; in many other cases they haven't.

The best personal strategy may be to learn as much about a green goo's disease vectors as early as possible, and train oneself to avoid the situations and behaviors that tend to enable those vectors. Small motivated groups might use technology developed by Biosphere II and other closed-ecosystem projects. We might build largely self-sufficient communities physically isolated from the rest of the planet, at least to the extent of eliminating all possible green goo vectors. People can then maintain a rich non-physical interaction with the outside world via virtual reality. The most important survival factor may be recognizing the emergence of green goo as early as possible, and taking these paranoid-looking preventative steps as early as possible.

Given the current memetic environment, both ethical and technological, green goo seems inevitable. But while it may take drastic action to avoid, green goo need not achieve its genocidal aims on those who keep a lookout for it, and act early and effectively to prevent its spread once it has appeared.

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