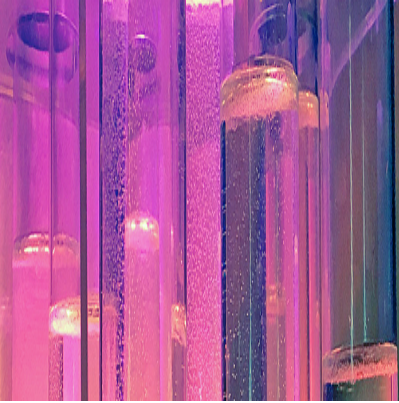




Garage labs and biohacks

Description

The domestic garage is adjunct space without heating, insulation and wall coverings. It's often physically connected to the rest of the home, but homeowners treat it as an outside space, or at least a buffer between inside and outside.

Garages are less common in inner city dwellings (where I live), especially where there are row houses, terraces, flats and older building stock. A garage is like a private bit of yard for storing cars, bikes, lawnmowers, boxes, ladders, paint tins, and unwanted exercise equipment.

Some home owners turn their garages into temporary or permanent rooms, dens, studios or gyms for billiards, table tennis, parties, art, mechanical repairs or starting a business. As any architect knows, the garage is not strictly a habitable room. The domestic garage is emblematic of do-it-yourself (DIY) independence, entrepreneurship and risk.

Some music bands start out as kids playing guitars in garages, and pioneers of the personal computers reputedly created their prototypes with limited means while working in the garage (though Steve Wozniak disputes the location in the case of his business partner Steve Jobs).

Garage labs

Garages are also laboratories. Fred MacMurray as [The Absent Minded Professor](#) created flubber (flying rubber) in a garage lab, and Batman keeps his car in the ultimate underground high tech garage lab, the bat cave. Such is the mythos surrounding the garage, automobile shelter, and the space it occupies when the vehicle is moved out of the way into the driveway or the street and makes way for the *biohacker*.

Cultures of the garage have become synonymous with hacking, which has in turn moved into areas of science. I'm indebted to a book by Alessandro Delfanti called *Biohackers: The Politics of Open Science*. Hacking is a type of *bricolage*, making do with whatever is to hand, recombining, adjusting, subverting any usual function of the pieced-together components. Hackers may break through security systems, with operations nefarious and illegal, but in the current climate, hacking mixes rebellion

and openness, antiestablishment critique and insistence on informational metaphors, and operates in a context of crisis and transformation where the relationship between researchers and scientific institutions, and their commercialisation and communication practices, are redefinedâ• (1).

BigBio rebels

Biohacking is a reaction amongst scientists and amateur scientists to the control of pharmaceuticals, genomics and other bioscience R&D by huge corporations and institutions (BigBio), and attendant peer review and regulation.

â••This so-called â••garageâ•• or â••citizenâ•• biology is conducted in weird places such as garages or kitchens and ranges from high-school-level educational experiments to complex biotechnology projects put into place outside institutional settings such as university or corporate laboratoriesâ•• (111).

The movement draws on informational metaphors, and is obviously inspired by open source developments in computing, as well as the idea that DNA operates as a kind of code. Hence â••sharing of genomic data through open access databases, the cracking of DNA codesâ•• (2) and â••cracking natureâ••s secretsâ•• (74) goes hand in hand with sharing software and equipment for home-based, low cost bioDIY.

DIY DNA

Shared DNA sequences also provide access to biological analysis without getting stuff on your fingers. You can play about with patterns, without having to mess with chemicals and wet matter. This is a culture where â••informational pattern is privileged over materialityâ•• (60).

Though the biohacking movement is anti-establishment, and regarded by some as a â••danger to public healthâ•• (113), Delfanti points to biohacking as a return to the unregulated Victorian â••gentleman scientistâ•• of independent means. After all, Charles Darwin was an independent hacker of sorts, working from home, and without initial institutional backup.



Big companies such as Google still operate with the mindset of the entrepreneurial, open source hackmeister, or at least thatâ••s part of their brand image. Delfanti identifies the significance of Googleâ••s spinout service *23andMe*.

The [23andMe website](#) states that after submitting a saliva sample you will view reports on over 100 health conditions and traits; find out about your inherited risk factors and how you might respond to certain medications; and discover your lineage and find DNA relatives. Not only do you find out about yourself from this service, but you contribute to a pool of data to be circulated and used by researchers.

Delfanti admits that innovations brought about by garage biolabs are as yet unspectacular. Genuine and controversial garagelab achievements include extracting DNA (e.g. from strawberries), basic DNA cloning, and modifying the DNA in certain bacteria to cause them to glow in the dark. According to Delfanti, "right now citizen biology is not a site of research and innovation but rather of political, artistic and educational experimentation" (115).

By encouraging and tapping into biohacker culture, some bio-tech companies and institutions engage with the creative potential of their publics. Here, biotechnology intersects with enthusiasts of fan fiction video gaming, and other creative and risky experiments "in the wild" (127).

Reference

- Delfanti, Alessandro. 2013. *Biohackers: The Politics of Open Science*. London: PlutoPress
- Ledford, Heidi. 2010. Lifehackers. *Nature*, (467)650-652.

Notes

- Also see the [biopunk manifesto](#).
- [DeCODE genetics](#) and the [Genographic Project](#) also offer personalised DNA decoding services.
- Spaces for community-based experimental biology exist. See for example [biologigaragen.org](#) in Copenhagen.
- It's difficult to avoid the gendering of spaces in biohacking narratives, but note the kitchen metaphor above.
- The [Ledford article](#) provides an interesting schematic of the architecture of the garage lab.
- Also see post: [Machine genomics](#).

Category

1. Nature

Tags

1. bioDIY
2. biohacking
3. biology
4. DNA
5. garage

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