

## Nano Culture

Nano Culture is the portrayal of nanoscience and nanotechnology in the sphere of popular culture such as books, movies and computer games. Nano is often used as a prefix for terms such as Nanobots, Nanites, Nanomeds, etc. and stands for atomic or molecular sized objects and machines. A technology that's in the realm of Nano Culture may give people special abilities or be their doom. The miniscule size of nanotechnology makes nano substances invisible to the human eye, thus representing a world beyond human experiences. This "out-of-our-world" notion of nanotechnology makes it suitable for imagining the construction of artifacts and human enhancements that are not possible in our normal world.

Nanotechnology is accordingly often used as the prime explainer and transformer in books, films and videogames, i.e. being the explanation that does not need any further explanation. The reason, for example, why Bruce Banner transforms into the Hulk in the 2003 movie of the same name is explained by radiation and tiny nanomachines. Which in the motion picture is not further developed. Nano is thus competing and sometimes replacing radiation as the prime explainer and transformer in many popular contexts.

In the genre of science fiction nano has become more or less a norm, and it has been argued that if nanoscience is not part of the futuristic world, there is a need to explain why. Among science fiction writers there has presumably also been complaints that nanotechnology has been used in a similar manner to magic, making everything possible.

In computer games nano is often just a prefix assigned to weapons, different types of gears or to opponents. The more avant-garde idea of using nano for constructing anything would create imbalances in computer games. Nano is therefore often there in name but not so much in altering computer gaming into a new format. In games such as *Deus Ex* and *Metal Gear Solid* nanotechnology is used in various equipments but without having a real impact on the games.

It is easy to see the charm for text-, computer game- and screenwriters of popular culture to use nano in their stories. Nanoscience and technology is a new know-how that exists but the outcomes of the new science is still to be seen, therefore making it a good candidate for speculation. There is also a bit of inevitability over nanoscience in Nano Culture, being presented as a technology that will come. It's more a question of when it will occur, then *if* it will occur.

By manipulating atoms and molecules, the smallest stable building blocks of nature, nanoscience also touches on the notion of total control over nature. If single atoms can be fully controlled almost anything would be possible to build, one atom at a time. To control nature may or may not be beneficially to humans although. In the popular context nanotechnology may give humans and other life forms the ability to get extra limbs, extra senses and prolong life. On the other hand, nanomachines may also go berserk transforming all matter in the surrounding area to new copies of itself. This doomsday setting is often referred to as the Gray Goo scenario.

Writers of science fiction are sometimes influenced by nano-visionaries thus blurring the boarder between science fiction and science prediction. In the novel *The Diamond Age* (1995) the author, for example, portrays nano-advocates such as Eric Drexler and Ralph Merkle as cultural heroes that appear on frescos in public buildings. Other novels such as *Prey* (2002) and *Nano* (2004) borders between science fiction and science prediction as they portray their fictional work as possible real scenarios. This mixture between fiction and prediction is of course also an allure for storytellers of all kinds to use nano in their narrative. It is easier to catch an audience with a scenario that may seem believable than to present the work as just pure fantasy. For the public although, it may be hard to separate between believable future prospects of nanotechnology and presumed fantasies. Thus causing a discrepancy between the mundane work of nanoscientists and the public belief in futuristic nanotechnology as portrayed in Nano Culture.

SEE ALSO: *Diamond Age*; Drexler, Eric; Gray Goo Scenario

BIBLIOGRAPHY: Michael Crichton, *Prey* (HarperCollins 2002); John Robert Marlow, *Nano* (Forge 2004); Neal Stephenson, *The Diamond Age* (Penguin books 1995);

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