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CART 351 Reflection: *Valence*

Valence is a data visualization project by Ben Fry. It originated as a part of his master's thesis on organic information visualization, written in 2000. Since then he has worked on multiple projects in data visualization and computational art, including co-creating Processing with Casey Reas.

Fry looked at organic information visualization as a way to visualize data that static visualisation schemes were insufficient for, data that's dynamic, changing, and large scale. By looking at the qualities of organic systems, he sought to make methods of displaying these kinds of data using these qualities, as often these systems exhibit qualities found in nature. Also, quantitative statistics can be misleading, so by rendering the data in a more quantitative way, it removes a certain air of "objectivity". In addition, it can make anomalies more obvious depending on the sort of data being visualized and the method used.

The sorts of data that *Valence* looked at and the methods used vary, in one iteration it looked at the textual data of books, in another and most recent in 2002, *Genome Valence* is a visual representation of an algorithm used for genome searches. It was made for the Whitney Biennial, and it was also used in the movie *Hulk*, highlighting the fact that Valence works on multiple levels, as an example of a conceptual exploration of organic data visualization, as a potentially practical tool, and an aesthetic piece of visual art.

Genome Valence in *Hulk*

Valence is a project in a long line of similar ones working towards integrating concepts and ideas from the organic world into the digital world. While certain parts of that lineage are being taken action on by tech companies today, the more fringe parts of it are still veiled in a kind of digital esotericism, of unlocking natural impulses in the human brain tuned to finding patterns

in the physical world. *Valence* straddles the line between these philosophies, on one side billing itself as potentially useful for making actionable feedback for corporations, and on the other side exploring algorithms for searching genetic data to gain a visual appreciation for them.