

A View from the Fish Tank

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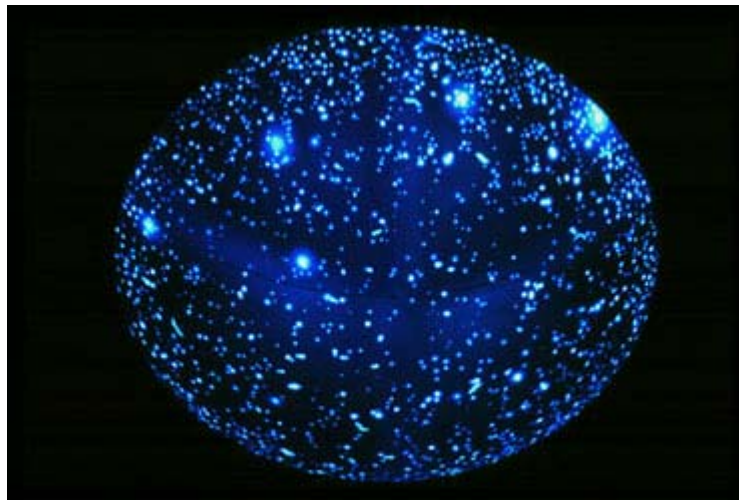


Figure 1 Lise Autogena & Joshua Portway, *Black Shoals/ Stock Market Planetarium*, 2001

It is a little too easy to see the global stock market as an abstract system, primarily subject to its own internal dynamics that are registered in graphs and grids of numbers, coded in colours (including, of course, red) to draw the eye of the trader. It is a short step from that view to imagining the stock market as a self-contained ecology, a system like a reef or deep-sea vent which develops blindly as its various components interact with each other and the changing environment. And that view is very close to those apologists of capitalism who see the whole system as natural, as much a manifestation of human nature as the beehive is of bees', and one that is tinkered with (let alone departed from) at our peril.

So, on the face of it, Lise Autogena and Joshua Portway's *Black Shoals/ Stock Market Planetarium* could be viewed with suspicion. Here is a visualisation of the global stock market as an animated star chart, with stocks glowing brighter or dimmer depending on the volume of trading, and drifting together or apart according to the congruence or divergence of their trading histories. Artificial life creatures inhabit the work, chasing after 'food' created by the buying and selling of shares, so that swarms of them cluster around areas of intense trading. Since only those that successfully find food among the constellations can breed, they evolve to become more efficient gatherers. The planetarium metaphor encourages viewers to think about people's ancient relation to the

stars as harbingers of fate, and the myriad vain methods of reading them to predict the future. The view onto the creatures, though, is more like that of an aquarium, as they swim, struggle to survive, breed without having the power to affect the system that sustains them.

Initially, the view of *Black Shoals* is from the gallery floor (or beanbag), looking up at a work that combines two quite familiar types of art-world entertainment. The first onto a display of the data sublime, in which the viewer is carried off imaginatively on waves of ungraspable data, just as people used to be before gigantic majestic or apocalyptic landscape paintings, or still are by safe(ish) views of mountains, storms and the sea. Whether the flows of electrons carry emails or images or numbers that are also money matters little; it is the pulsing of the data packets that gives the requisite feeling of vertigo before a display of unconceivable complexity and speed.

The second is focused on the spectacle of the creatures themselves, and on the idea of their evolution. Belatedly, contemporary art has begun to fix on genetic manipulation as another palette, and we have been much regaled with day-glo rabbits, purportedly mutant bacteria, and various Photoshop mock-ups of transgenic human bodies. The point that may snag a conventional reading of this piece as mere spectacle is that Autogena and Portway collaborated with artificial life programmers to produce creatures that really do evolve. Yet, since this process is hardly visible, it is likely that *Black Shoals* is seen as participating in the regular run of art-world entertainment, comprising works that ‘raise’ issues without ever saying much interesting about them. Such attitudes are encouraged in the gallery since little or no interaction with the system is permitted, and in any case this is the sort of thing that many people expect to go to galleries for.

Yet there is another quite different view of this work—that of the trader. It was initially conceived as a work to be made for a bar-restaurant in the City of London. One can imagine clients looking at *Black Shoals* for the information it conveys, and even snapping open their phones because of something they had seen. The piece was first realised for a show at Tate Britain at the very time of the dot.com crash, so viewers could see high-tech ‘stars’ rush together, burning brightly as their values plummeted—on this metaphor, I suppose, shooting stars. So this starry night, seen in cities where the stars themselves

are erased by commercial lighting, can be read for accurate portents of future economic events.

On the traders' view, *Black Shoals* is less a spectacle than a more or less efficient visualisation model for viewing the movement of a large number of individual stocks and shares. That movement is difficult to represent in a coherent visual field, though great prizes await those who can do so since people are generally much better at understanding what changes are taking place when presented with a picture than with an array of numbers. In its latest incarnation, it will be easier to use *Black Shoals* as a tool, since permission to show the names of the stocks alongside the stars has been granted. The artificial life creatures, too, may come to have an instrumental purpose, being cousins of functional software entities trading on the world's exchanges; if in their search for sustenance they evolve the ability to predict likely areas of trading, they could become efficient generators of income.

The systems that humans establish, including the global financial system, exhibit emergent behaviour, a product of their own autonomous logic that exceeds the intentions of their creators. Attempts to map their totality are linked to efforts to predict and control those systems, to manage risk, reduce exposure to losses, and assure the regular flow of profit. That Grail appeared to have been achieved for a while with Fischer Black and Myron Scholes' remarkable formula for generating stock market profit without risk, using hedging investments (or side-bets). For some years, this formula produced extraordinary returns for its users, while in 1997 Scholes shared the Nobel Prize in Economics for this work. The model, it turned out, was too fixed on the market as an autonomous system. It could predict neither the collective effects of many traders using the model at once, nor its behaviour at an exceptional moment when the vast speculative bubble, in part founded on high-tech stocks, burst. At that point, its risk management catastrophically failed.

Black Shoals oscillates, then, between two poles, weighing the vanity of human ambition to achieve complete understanding of a field against the potential efficacy of blind, evolving agents, in their urge to feed and breed, to yield knowledge. This brings us to the last view of the work, though to take it involves a small imaginative leap—that of the

creatures themselves. For surely the creatures are like the great majority of people, who respond to but have little direct power over the system that they inhabit.

To see the global stock market as a self-contained sequence of numbers, or as a mathematical problem to be managed and controlled, is to forget what the system is. Far from being natural, it is much regulated by national governments and transnational bodies. The physical environment of the tank is explicitly designed and quite frequently refashioned. The rise and fall of stocks and shares is merely a reflection of the collective opinion of traders (and increasingly virtual agents) about the likelihood that they will rise or fall. Those opinions are dependent on the actions of other traders and on reactions to world events: what will unrest in the Middle East do to oil prices, how soon will the demand for computer chips pick up, how many home-owners will use the rise in house prices to guarantee loans for consumer goods, what will the bombing of a hotel in Tunisia do to the tourist industry there? The opinions registered in the movement of stocks in turn generate physical effects: this person becomes unemployed, another employed, this one's neighbourhood becomes polluted with industrial waste, this one labours for fifteen hours a day sewing fashionable garments, this one starves, this one becomes an indentured slave working on a cocoa plantation, this one is sold into prostitution, while—rarely—this one accrues millions or even billions of dollars. Those effects in their turn are registered in the continuing movement of stocks. It is a system of continual feedback, and while it has its own internal effects, including collective delusion as was seen clearly with the dot.com bubble, finally it arrives at an accounting with social, political and economic reality. *Black Shoals*, then, can be viewed bodily as well as abstractly, if its glowing pixels are seen not merely as a visual array for a set of numbers but as traces of the struggles over cash, resources, bodies and lives, a matter (depending on where and how you live) more or less mundane or desperate, routine or bloody. At a time when even in the developed nations, more and more people are growing financially insecure as the processes of 'rationalisation' that were applied to the working class are extended to the middle (and gallery-going) class, *Black Shoals* acquires a sharp tang. Perhaps the glowing of some star that you appreciate aesthetically from the gallery floor represents a process that will cause your own descent into the underclass.

Unlike the people who are affected by the rise and fall of stocks, the creatures in *Black Shoals* make no alteration to the data flows, which continue to be transmitted from the

stock markets regardless of the creatures' actions. The real world is not quite like this, of course. There, people's actions do affect the movement of stocks, particularly their decisions to withdraw labour, overthrow governments or engage in unsanctioned warfare. What is more, their increasing consciousness of the character of world capitalism produces an effect in and of itself, as people protest the ruling of their lives—and for many even the chance for life—by the abstract demands of the system. So the main utility of *Black Shoals* may be as an aid to that growing consciousness, at least when the work is viewed concretely rather than abstractly, and from within rather than without the glass.