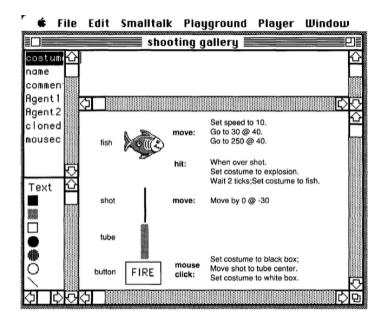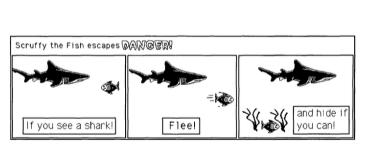# Playground

Fenton and Beck (1989), along with Kay, Marion, Beck and Wallace.

Part of the Vivarium project, Playground is an object-oriented language designed for children. The idea was that children would imbue graphical objects with rules, "turning them loose in an envornment" and thus gain an appreciation for "complex dynamic systems." Particular inspiration is taken from biological systems, which seems to inform many of the examples. Reading Fenton and Beck, the system design sounds like an important historical keyframe between Smalltalk and Squeak, E-Toys, and Scratch.

Figure 6: Stickleback Behavior

At first, the program appears to be a drawing program—shape objects, bitmaps, text, and aggregate objects are edited via direct manipulation. This structure is recursive, as objects can be opened up, revealing itself to be another playfield containing agents.
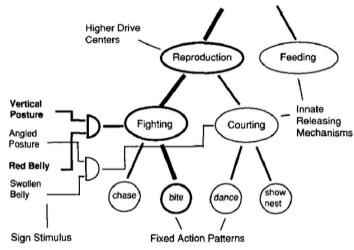
Given their biological impetus, and talk of sign stimulus and drive centers, it's unclear why they didn't offer, as programming representations, (a) behavior trees, and (b) visual diagrams.

Programs are described in terms of causal relations and an "English-like syntax." The authors also speculate that comic book panels could be a good representation for programs.

Fenton, Jay, and Kent Beck. "Playground: An Object-Oriented Simulation System with Agent Rules for Children of All Ages." ACM SIGPLAN Notices 24, no. 10 (1989): 123–137.
Kay, Alan. "Computers, Networks and Education." Scientific American 265, no. 3 (1991): 138–148.