Cellular Automata and Lattice Gasses

This paper discusses the use of cellular automata. In essence cellular automata attempts to connect the microscopic and macroscopic elements of a system. In dealing with Lattice Gasses, for example, temperature, pressure etc. can be used to describe what is happening at a macroscopic level, but when at a microscopic level those properties cannot be used.

One aspect that I really liked was their example of how cellular automata can apply to real life. The 3D example seemed particular significant. The possibility of implementing 3D graphics using cellular automata is kind of excited. Each day I am more and more impressed with the level of detail in the latest 3D games. I only wonder what would be possible if we were to utilize cellular automata and if it would be worth it. I kind of wish that the paper would have gone into more depth here.

The billiards example was also pretty cool. They went into a little more detail to describe its implementation with cellular automata. I thought this was pretty significant because I always associated billiards as a strict example of physics. Seeing how it would be implemented using cellular automata was really cool. Drawing this connection between billiards and chemistry really helps the authors claim that cellular automata can be used to computer "anything".