

Illustration 2:

Empirical Programming for a lift system

programming has a descriptive and prescriptive aspect

empirical modelling in parallel  
by the user, the analyst and the implementer

concurrent engineering process

Moral of the talk

... there be dragons

... issues for all approaches to modelling and programming

- dangerous combination:

formal operational semantics for components  
+  
formal specification of behaviour

- don't want premature commitment to formal models

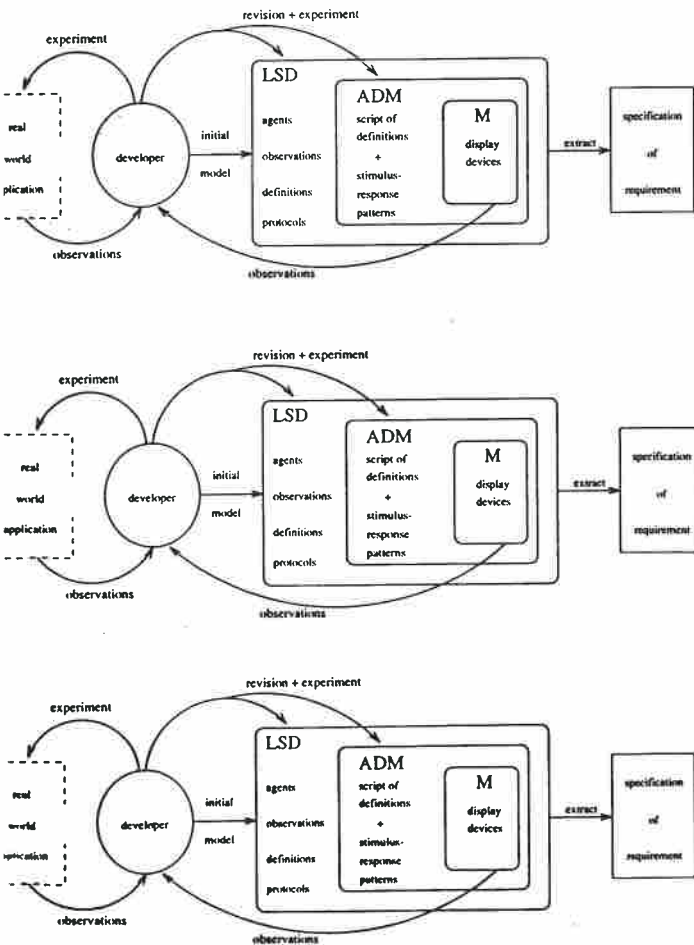
such models don't properly reflect our ignorance of the application of Ficts

(some) theory must be application-specific

- have to develop modelling methods open to experience

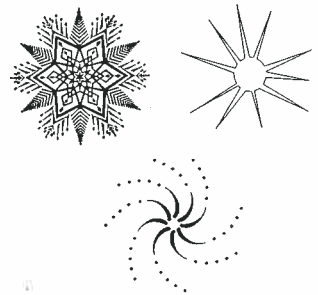
have to understand the relation between our experience and our commitments

need to know how to take account of evolving experimental knowledge of Brooks "grow, not build software"



Ficts are one the oldest forms of life on the planets Alias and Bias.

They are renowned for the extraordinary configurations into which they organise themselves, and have been the subject of scientific study on both planets.



Principle inhabitants of Alias are the A-I: they have a highly intelligent and technologically advanced civilisation.

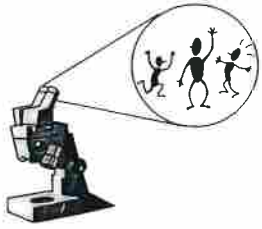


The inhabitants of Bias are the B-O: a people infamous for their powerful scent who are less advanced in scientific matters, but have a well-developed sense of humour.

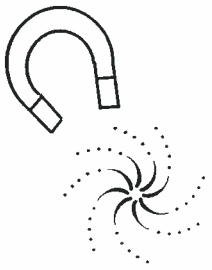


For many centuries on Alias, identifying and interpreting geometric patterns in conficts could only be done by the Alian religious leaders.

The theory that conficts consisted of colonies of ficts was well established long before the invention of the microscope first made it possible to observe individual ficts.



Microscopic examination showed that there were two kinds of confict: active and quiescent.

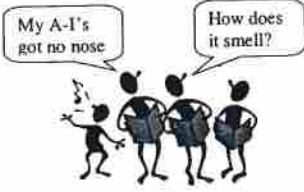


Shortly after they discovered magnetism in C20, the A-I observed that quiescent conficts were arranged in orbits that followed the lines of the local magnetic field. The organisation of active conficts at present remains a mystery to the A-I.

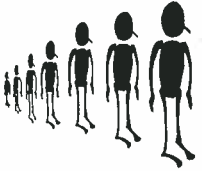


The B-O can see individual ficts directly, but are handicapped experimentally because active conficts are thrown into confusion by B-O presence.

The B-O were the first to be aware of the correlation between orientation of ficts and their colour. Bodkin tested this by dyeing black ficts red but the experiment failed. There are red varieties on Alias that don't obey this rule.



B-Os believe that ficts are intelligent and that active conficts are ritual joke telling ceremonies. A-Is do not believe that ficts are intelligent.



In fact ficts are very intelligent. Alignment and orientation to magnetic field are matters of social convention.

Ficts organise themselves into patterns to leave scent traces that record the location of food sources. These pheromones are over-powered by B-O presence – a fact inexplicable to the A-I as they have neither experienced nor developed a concept of scent.

