

Prietpraat by Danny
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"Almost everyone had heard rumors that something had happened in Santa Fe."

Santa Fe, Santa Fe.

"Arrow was talking it up everywhere he went"

"But who or what was the Santa Fe institute?"

Is it the essentialized nature proposed by Prigogine and Stengers⁰:

*"We have discovered that far from being an illusion, irreversibility plays an **essential** role in nature and lies at the origin of most processes of self organization" (8).*

Prigogine and Stengers, who pose that

"Our universe has a pluralistic, complex character,"

but also suggest that

*"We are living in a **single** universe" (9)?*

Prigogine and Stengers who claim that

"The natural contains essential elements of randomness and irreversibility," (9),

and contextualize their quest by referring to

*"The collision between what has often been called the 'two cultures,'
science and humanities" (11)?*

The multitude,

The temporal,

The complex?

Definitely it seems that the stage is set for some sort of chaos by this historical text. As they state: *"We believe we are heading toward a new synthesis, a new naturalism. Perhaps we will eventually be able to combine western tradition, with its emphasis on experimentation and quantitative formulations, with a traditions such as the Chinese one, with its view of spontaneous, self organizing world." (22)*

Indeed, the scientific enthusiasm with which the new naturalism is proposed is what resonates in the romanticized Walldorf article¹. The story of Santa Fe and its heroes is indeed fascinating:

The institutionalized struggle to organize:
*"Here's an ice ax and rope--go climb Mount Everest.
I was amazed.
I was awestruck.
I found it overwhelming."*
(244)

The deep philosophical, self-reflexive questions on the stairs of academic truths:
*"But for myself, he says, I couldn't see how you could define 'truly' emergent behavior.
In some sense, everything that happens in the universe, including life itself, is already
built into the rules that govern the behavior of quarks. So what is emergence, anyway?
And how do you recognize it when you see it?"* (242)

The successes, measurable in infinite intellectual joy:
*"As Stuart Kauffman says, 'I was learning a whole new way of looking at the
world about twice a day'"*

In general, the Santa Fe approach seems to suggest that--as in the real science of weather--the essence of science is one of comprehension and explanation, and not one of prediction. If it were prediction, we would be hopelessly lost. Indeed, the story of Arthur suggest that we have been hopelessly lost, and only the enlightened academic artists sees underwise: *"Well, yes, it is a bit late, and I have made plans."*

De Landa² also argues there is an essence, and this essence seems to lie in principles of organization--heterogeneity, selection, homogenization--and abstract machines generating hierarchies, meshworks, and probe heads acting upon adaptive landscapes. It includes bounded rationality, urban isolation, ecological crises, central and network cities. *"The flow of genes is indeed only a part of what life is. The other part is constituted by the flow of biomass."* De Landa's science is a history of organizational forms and catalysts. From hierarchies to meshworks to hybrids, influenced by accelerators of historical time.

But in the end I can not help but feel a bit undetermined. Although all of these thinkers suggest that it is not progress but states of organization that count--that it is not prediction, but description and understanding--I am not convinced that in the end these states of organization are not embedded in political moralities after all. Moralities that do pose a better and worse and that can count as

standards of judgement on which to base predictions. For the sake of being human, what is the sense of understanding without trying to predict? Can the psyche even avoid a conceptual meshwork of understanding an prediction when seeing a car heading for a wall? What would Ingold say?

These moral goals are visible in other ways. Prigogine and Stengers "essential" nature of the "new naturalism" clearly outdoes the classic mechanical view of reality: *"our unification of dynamics and thermodynamics will bring out clearly the radical novelty of the entropy concept in respect to the mechanistic world view."* It is this same obsession with novelty that undergrids the Santa Fe approach: *"'He says do anything you want,' she replied after checking with Reed, 'so long as it's not conventional.'"* And for De Landa, the promise that meshworks would not necessarily be better than control hierarchies seem to become increasingly set aside when the homogenization of society through Foucaultian disciplinary actions is elaborated on.

Prigogine and Stengers note that *"One of the problems of our time is to overcome attitudes that tend to justify and reinforce the isolation of the scientific community"* (22). Previous reading on post-normal science come back to my mind. Is thermodynamica the most effective way to inform and invite the public?

I am not so sure.

In addition, De Landa's scientific language--bifurcations, catalytic loops, memes, etc.--seems as of yet an ill advised alternative to the public histories that are out there today. Most promising is perhaps the approach of Arthur and colleagues at Santa Fe. In my judgement, they are on a total evolutionary ride using the wind of cybertimes by discovering that *"SimCity is one of the best examples of the flight simulator idea."* This being the daily "lifeworld" of the 13 year old high school kid, I anticipate that lots of connectivity will be witnessed in the coming decades of science between the the Santa Fe institute and the new internet and gameboy cognitions of the generations to come.

Good for them.

The Santa Fe approach will make a great TV-soap series.

⁰ Prigogine and Stengers 1984. *Order out of chaos: Man's new dialogue with nature.*

¹ Mitchell and Waldrop 1992. *Complexity: The Emerging Science at the Edge of Order and Chaos.*

² De Landa, M. (1997) *A Thousand Years of Nonlinear History.* New York: Zone Books/Swerve Ed.