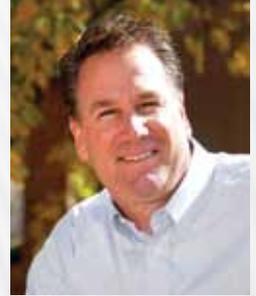# From Passionate Curiosity
TO EMERGENT SCIENCE

On a Saturday evening in November 1984, as the second of the Institute's two exploratory founding workshops wound to a close, our founders – George Cowan, Murray Gell-Mann, David Pines, and their colleagues – knew at last they had in their net a new and rather charming species of scientific inquiry.

Decades before, mathematician and meteorologist Edward Lorenz had proffered the "butterfly effect" as a metaphor for how seemingly inconsequential changes to the initial conditions of a dynamical system could profoundly influence the later state of that system; theoretically, he speculated, disturbances caused by the flapping of a butterfly's wings in Brazil could set up the conditions for a tornado in Texas (later dramatized as a hurricane).

What utterances might have stirred the minds of the workshop participants and set up the conditions for SFI-style science, we can never know. But we can ask what intervened – what happened between the butterfly and the tornado? For this issue, a tribute to SFI's 30th anniversary, I asked some of SFI's people to trace for us a few of the themes that have endured here across the decades.

These seven essays are by no means a comprehensive look at the history of thought at SFI. (Can you imagine the heft of such a volume?) You'll easily spot as many omissions as essays.

Nor are these seven authors representative of the many contributors and lineages of thought within each theme. The authors are individuals, and as such they come with particular perspectives that you might find too narrow, or not narrow enough.

So be it. I am grateful to each of them for sharing the SFI adventure as she or he experienced it. I hope this issue promotes more of the compelling and daring transdisciplinary thought we can and should expect from the Santa Fe Institute.

John German
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BUTTERFLY: LINCOLN NATIONAL FOREST/USFS; HURRICANE KATRINA: NASA; BACKGROUND RIPPLE: ISTOCKPHOTO.COM