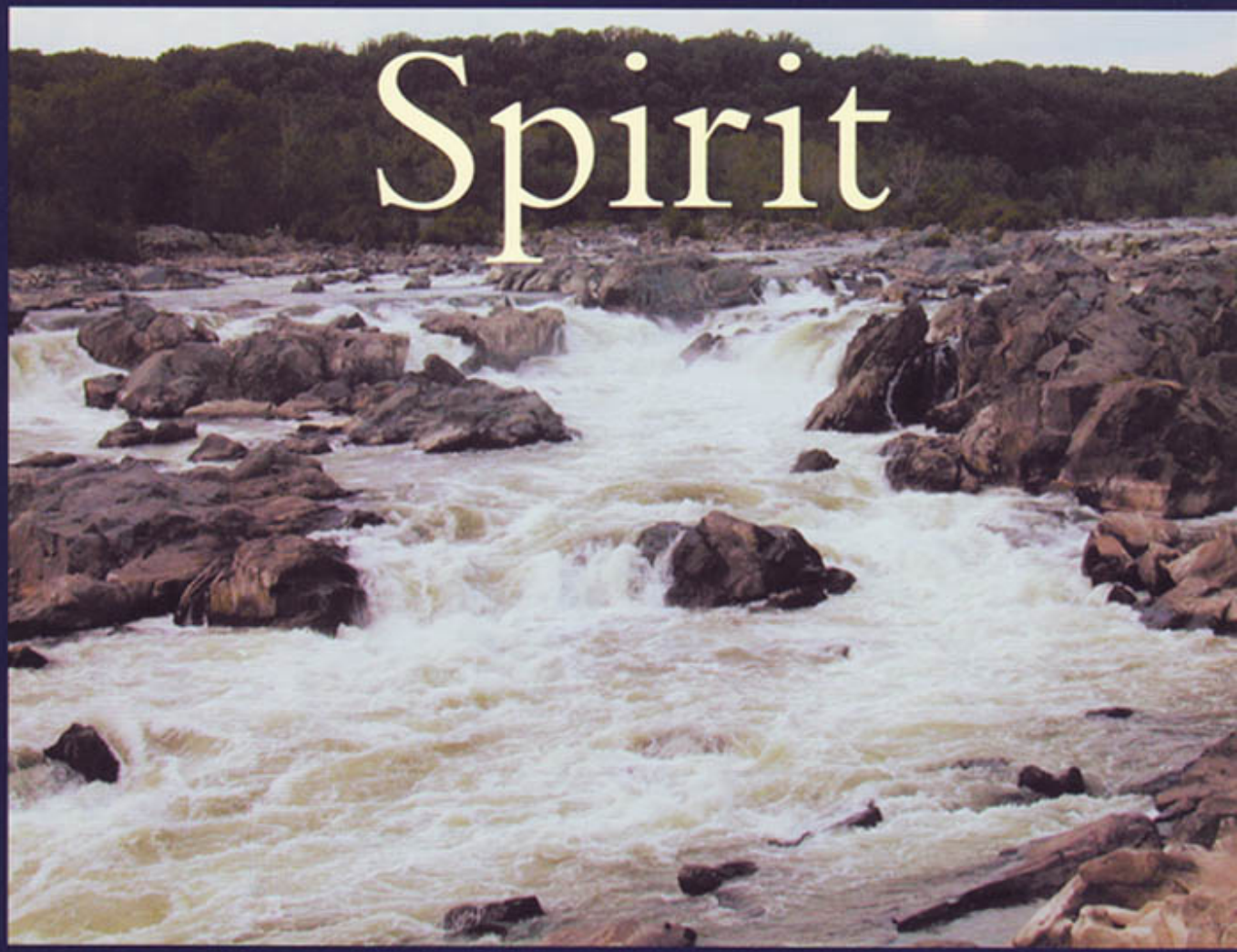
The Power of Spirit



How Organizations Transform

Harrison Owen

An Excerpt From

The Power of Spirit: How Organizations Transform

by Harrison Owen
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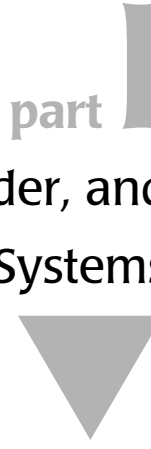
Preface

This book completes the Open Space Quartet. *Expanding Our Now* introduces Open Space Technology. *Open Space Technology: A User's Guide* provides the essential "how to" information. *The Spirit of Leadership* explores the nature and function of leadership in an open space environment, where control as we used to know it has ceased to exist. This present book completes the story by providing the critical link between a meeting methodology and a very new way of being in organization.

All of these books, with the exception of *Expanding Our Now*, had a previous life with Abbott Publishing. Thanks to Steve Piersanti and the good people at Berrett-Koehler, they are now available to a much broader audience, usually with major revision and additions. This book is no exception, and while some of the thoughts and words began life in my earlier books (*Spirit: Transformation and Development in Organizations, Riding the Tiger, The Millennium Organization,* and *Tales from Open Space*), this is not simply a rehash of what has gone before. There is much new material and new ways of looking at older ideas. My intent is to offer a distillation of 40 years of thinking about and working in organizations of all sorts.

Harrison Owen
Potomac, Maryland
June 2000



Chaos, Order, and Self-Organizing Systems

Chaos and Order. An antithesis if there ever was one. In the presence of chaos, order takes a holiday. And order, of course, is the essential antidote for all that is chaotic. More than simple word games, however, the opposition of chaos and order takes on the proportions of the primordial mythic struggle between good and evil, light and darkness. To be on the side of order is to be on the side of right, truth, God. As for chaos, that is the domain of the devil and all his, or her, works of darkness.

On more mundane levels, the struggle between chaos and order continues. A chaotic life is to be avoided, and businesses that experience massive amounts of chaos are typically not good investments. And the key to victory is control.

Throughout history and even recently, those who take charge and exercise the maximum degree of control are the heroes and heroines of our world. From the executive suite to the flood plains of the Mississippi, the person who controls is worthy of our respect. A take-charge attitude, combined with the capacity to execute, has been a sure ticket to the corner office on the top floor. And down along the riverbanks, The Corps of Army Engineers heroically battled the mighty Mississippi into submission, all in the name of Flood Control. Or so they said.

But the mind-boggling complexity of global business has rendered micromanagement (total control) at the macro level quite absurd. And of course, the mighty Mississippi has had some nasty messages for those who really thought she could be controlled.

What if control, as we have thought about it, is delusion, and chaos, despite its unpleasant aspects, is essential for life?

What if—indeed.

chapter 1

Chaos and the End of Control As We Knew It

If there is a single sacred word in the culture of most of our organizations, that word is control. When we have it, we are in good shape, and in its absence disaster is a short step away.

As managers we have been trained to control, and control is the prime attribute designating high-quality management. The centrality of control is not usually stated so blatantly, but it is never far from the surface. According to the old dictum, the good manager makes the plan, manages to the plan, and meets the plan. And the essence of all of that is control. Close, tight control.

We presently find ourselves in rather strange circumstances. It remains relatively easy to make a plan, for after all we control the pen, paper, or computer. But ensuring that the plan, once made, will have any relevance past the drying of its ink, is no easy task. Sure as the sun rises, some unpredicted event will shatter our best efforts. These are hard days for plan makers, and all those other folks who place high value on being in control.

But what are the options? Somewhere along the line we came to the conclusion that the only alternative to control was being out of control. And we all know what that means. Chaos!

In the good old days (whenever they were), events moved at a stately pace, allowing us to make our plans with some reasonable hope of completion. And indeed, we often looked forward to a little chaos just for added spice. Chaos is no longer a little spice added to the organizational stew. It has become our daily bread and butter. As Mikhail Gorbachev said, "We are already in a state of chaos." (*Washington Post*, Fall 1990) Maybe someday we can return to normal.

SOMEDAY WILL NEVER COME

The hope for a return to normalcy is precluded by myriad factors. I will mention only two: first, the state of the planet; and second, the electronic connection.

The State of the Planet

It is not my intention to deliver an impassioned plea for ecological reform, although that is certainly in order. Rather I merely wish to point to the present sorry state of the planet as a prime factor precluding any possible return to normalcy. Take whatever list of ecological disasters you wish (present, imminent, or potential), and it is patently obvious to even the casual observer that the base system, upon which all other systems stand, is badly out of whack, and showing every sign of becoming more so. Acid rain, global warming, depletion of the ozone layer, destruction of the planetary lungs (rain forests), toxic wastes, are just examples of the many ecological problems; it seems almost pointless to count them. Each contributes, and all conspire, to create the conditions under which we will never return to normal, and business as usual. For it was "business as usual" that got us into this mess.

The productive capacity of the West—now spread around the world—has indeed been good business. However it is business as usual, which is about to put all of us out of business. Scientific studies documenting the appearance of the Greenhouse Effect combined with predictions of the ultimate outcomes are sufficient to give you nightmares.

And the nightmare is quickly becoming a "daymare" as our once crystalline blue skies smudge over with the noxious fumes of millions of automobiles, factories, and power plants. Worse, an unsightly mess has become a genuine hazard to our health. In Bombay, Mexico City, Los Angeles, to say nothing of Washington, D.C., pollution alerts are now a way of life, and evacuations of the young and old a growing occurrence. Truly, it is getting hard to breathe, and as any business person understands full well, customers who stop breathing are rather unlikely to buy. In a word, getting back to normal, or returning to business as usual, is a one-way ticket to disaster. We really don't want to go there.

The Electronic Connection

Not terribly long ago, the notion that our planet was a small electronic cottage appeared "far out" and avant-garde. However, science fiction is now an everyday experience. We are all connected and virtually instantaneously. When something happens in a far corner of the planet, we know it, and react. What all of this has to do with the impossibility of returning to "normal" is quite simple. Our organizations and institutions, almost without exception, were designed for a much different era, and even those human systems designed most recently are apparently patterned on what has gone before.

The archetype for organization design emerged early in the 1900s, a classic period in the United States with the organization of General Motors, DuPont, Standard Oil of New Jersey, and Sears and Roebuck. Chronicled by Alfred Chandler[1] these corporations manifested organizational charts of such complex precision as to boggle the mind. Presumably all of this worked, and certainly everything was most impressive on paper. But that was a slower, simpler day and we could afford to pursue the majestic process—up and down the organization chart. But control was optimized and order prevailed, or so it is said in the textbooks.

As we know all too well, such a majestic process is simply trashed when responsive decisions must be made in minutes and not months or

years. The net result is that decisions are not made or are made poorly and late, or the participants simply gasp with exhaustion. Stress and burnout become a seemingly inescapable cost of doing business.

More recently the insanity of the situation has been acknowledged, and major efforts have been launched to reduce organizational layers, and thereby enhance the efficiency of the process. But the fundamental understanding of the nature of organization remains unchanged. To be sure, layers have been reduced, but the essential design remains the same. It is still made up of layers, albeit fewer of them.

It would seem that the lessons of chaos and complexity have yet to be learned. Or if they have been learned at a conceptual level, they are not yet assimilated at a deeper level, where a fundamental change in understanding takes place. The notion remains that someday, somehow, we will create the perfect structure that will ensure the continuance of control. Surely somebody is in charge, if only we could find the right person and the right structure. Lots of luck.

GUESS WHAT? THIS IS NORMAL. CHAOS IS A NATURAL PART OF LIFE

Slowly it is dawning on most of us: there is no going back, and what we now experience is normal. If this is so, then perhaps chaos is not antithetical to life, but rather a normal, natural, and possibly necessary aspect of what it means to be alive.

Not very long ago such a thought was pure heresy, for have we not all been taught that the lack of order is the end of productive existence? Science, at least as we learned it in school, had one basic message: the universe is an orderly place, thus the scientific method and prediction are possible. From Newton onward, we have lived in a clockwork universe with a time and place for everything, and everything in its peculiar time and place. Were things to get out of order, it was the role of science to put it back together. Maybe.

Of course, some other aspects of the scientific endeavor do not appear to play by the same rules. Subatomic physics, for example, has found

itself in world of randomness where indeterminacy is the rule, if a rule can be indeterminate. However, this may all have been an aberration, and such a luminary as Albert Einstein boldly proclaimed, "God does not play dice." For Einstein, as for many of us, the thought of a fundamentally disorderly universe is appalling. Little storms and small disturbances to be sure—but chaos as a natural part of life?

A WORD FROM THE PAST

Actually, the thought that chaos is not only a natural aspect of life, but an essential and positive element, is not a new one. So far as I am aware, every major religious tradition has held this view. Of course, that does not make it true, but at least it may give us pause for thought.

For the Hindu, Shiva, the Lord of the Universe, is usually depicted with two faces. One of the faces is that of the creator. But the second is the face of destruction and chaos. The picture is relatively clear. The universe is the product of an alternation, or better, a synergy of forces: order and disorder, cosmos and chaos.

From a different part of the globe comes a similar thought. The Taoist tradition of China places much weight on the yin and the yang. While often thought of as male and female polarities, there is in fact a deeper meaning. The yin and the yang can equally refer to the light and the dark, the forces of order and the breakthrough of chaos. If life were all order, there could be no evolution. Were it all chaos, there could be no continuance. It is only in the dance between chaos and order that life progresses.

The interplay of the powers of chaos and order, as an expression of the divine intent, finds its place also in Judaism. The sacred history of the people of Israel may be read as a guided passage through chaos and on to New Creation (to use the phrase from Jeremiah). From Egypt, into the chaos of the Desert, and on to the Promised Land. But note: the Desert is the antechamber to the Promised Land. The prophet Isaiah[2] puts the thought quite directly when he says (speaking for God), "I create the Light and make the Darkness. I create peace (*shalom*) and chaos (*tohu w' bohu*)."

In Christianity, the centrality of chaos in the process of existence is clearly stated through the stark symbolism of the cross. In the language of that faith, crucifixion stands as an intermediary between life and new life (Resurrection). Christmas, Good Friday, then Easter—that is the story.

Is all of this true? Who knows? But that is the story, and it is a story that has been told in the community of humanity with remarkable consistency for a very long time. It is only in the recent past (since the dawn of the scientific age) that we have attempted to tell a different story, in which disorder and chaos are banished from the universe as aberrant and fundamentally useless phenomena. Perhaps our new story is the aberrancy?

A WORD FROM THE PRESENT

History now seems to be repeating itself, or perhaps we are now remembering what we have tried very hard to forget. Science, or at least some scientific disciplines, has now rediscovered chaos. Within the past thirty years, from a very broad spectrum of scientific disciplines, there has emerged first a suspicion, and now something that looks remarkably like a coherent body of knowledge, all gathered under the umbrella of chaos theory. I leave it to James Gleick[3] and others to describe the details, but in a nutshell, the chaos theorists are proposing that not only is there a pattern in chaos, but that chaos is useful.

The pattern emerges upon consideration of the life cycle of any natural, open system. Open systems are to be contrasted with closed systems, which turn out to be figments of our imagination, existing only as theoretical constructs, albeit useful ones for the conduct of science.

For example, if one were to seek some strange new electronic particle, it is essential to "wall out" interference from all other particles that might get in the way of the experiment. At a practical level, walls of lead and concrete are constructed to protect the experimental environment (close the system), but even with best efforts it is never quite possible to achieve the tight, hermetical seal that might be hoped for. The

next part is an act of hope, and probably also faith. Everybody hopes that such elements that do break through will create a level of disturbance so low as might be disregarded. Thus even in the laboratory environment, where scientists do their best to "close the system" and thereby control the unwanted variables, something always seems to get through. It may just be an aberrant neutron, with an impact so small as to be forgettable, but something opens the can.

There is a lesson for managers in all of this scientific jargon. We have been treating our organizations as if they were closed systems, which we might fully control—all under the heading of scientific management. The truth of the matter is that all systems are open, and most especially our organizations. Is it any wonder that efforts to control inevitably meet with disappointment?

Now back to chaos. When you observe the process of a natural system, it is noted that the life cycle is punctuated by periods of order and chaos. Sometimes things go right, and sometimes we are in deep tapioca. There is no news here, but a definable, predictable pattern emerges. While one may not be able to say when this pattern will begin or end, that it will occur is assured.

The pattern divides into four stages. The first stage might be called Steady State with Development. Everything is going along fine, and getting better. The second stage is called Periodic Doubling, the meaning of which we will come to shortly. In the third stage, chaos appears, which means that all previous patterns are broken and predictability becomes a thing of the past. The final stage may have one of two forms: dissolution, or renewal at a higher order of complexity. The meaning of dissolution should be obvious: everything falls apart, and it is over.[4]

Renewal at a higher order of complexity is the intriguing piece. Somehow this Open System gets itself back together, not as it was, but in a new (usually radically new) fashion, which is at the same time related to its past (it is still recognizably the same sort of thing), *and* in synergistic harmony with the new environment.

For example, suppose that our Open System is a population of deer. Each year the males and females do what they are supposed to do, and

the herd increases. We might say that the herd is stable and getting better, and predictably, given sufficient water and food, things will only improve.

But one year a very strange thing happens. For absolutely no observable reason, the number of births doubles. The next year, the number of births is halved. And so it continues for a few years, doubling up and then doubling down (this is Periodic Doubling). After a time, and usually a very short time, any logic or rationale in the number of births totally disappears, and we have chaos. From that point on one of two possibilities will come to pass. Either the herd will disappear from the face of the earth, or it will restabilize in some new functional pattern, more conducive to living in its environment.

The critical point was the onset of Periodic Doubling, and the critical question is, why did it occur? Here we must introduce the butterfly. One of the most profound discoveries of the chaos theorists is that *Open Systems have extreme sensitivity to early conditions.* Translated, that means that sometime in the early life of the herd something happened or didn't happen. At the time, this happening would have appeared so trivial as to be inconsequential. But somehow the impact of this happening was carried along in the life of the herd in a dormant state. Suddenly, for no apparent reason, the happening happens again, the balance is tripped, and Periodic Doubling commences. Now back to the butterfly. It is part of the folklore of chaos theorists that a butterfly flapping its wings in Thailand will affect the weather system of California. Who knows whether it is true, and it is doubtful that the butterfly will ever be caught in the act. But that is the story.

WHAT EARTHLY GOOD IS CHAOS?

If chaos has a place in the natural order of things, it seems pertinent to ask, does it do any good? Has it any use, and if so, what?

Arnold Mandell, quoted in Gleick's book, poses the question in an interesting and provocative manner. "Is it not possible that mathematical pathology, i.e., chaos, is health? And that mathematical health,

which is predictability . . . is disease?" He then says pointedly: "When you reach an equilibrium in biology, you're dead."[5]

The suggestion is that chaos represents the growth point in any system. Or in a term that we will be using rather extensively, chaos creates the *Open Space* in which the new can emerge. Obviously there are no guarantees here, for chaos can equally mark the end—in fact it always does. The central question is not about ending, but rather the possibility of new beginning. Chaos may therefore be the essential precondition for all that is truly new. No chaos, nothing new.

One of the unique aspects of chaos in my experience (and I suspect everybody else's) is *difference*. Whatever else may be true, the chaotic situation is different, unlike what preceded it and what follows. We may not like the difference, and indeed that difference may be downright painful. But there is no denying that there is a difference.

Gregory Bateson[6] teaches us that the perception of difference is the essence of learning. Or in his words, learning occurs when we notice "differences that make a difference." This deceptively simple phrase takes us in interesting directions, for it suggests, in the present context, that the function of chaos is to create the conditions in which real learning can take place.

While it may be true that chaos is part of the life story of all systems, our concern here is primarily human systems—practical concerns like businesses, governments, and other organizations, productive of the goods and services we as human beings require. Furthermore, the pressure of the moment makes it essential that we focus our attention not on the maintenance of what is, but on the evolution of what must be if we as a species are to continue in some useful way on this planet. Learning, in its deepest sense, appears to be critical. Thus if chaos creates difference, and difference enables learning, may it not be that our nemesis is also, and simultaneously, our salvation?

So what good is chaos? Provisionally, let me propose that chaos creates the differences that make a difference, through which we learn.

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chapter 2
Chaos and Learning

The suggestion that chaos and learning are naturally linked, and more, that one forms the essential precondition of the other, may appear nothing short of lunacy. Do we not know, as only countless hours in the schoolroom can teach, that learning requires order? What else does the teacher do but maintain order in the classroom so that learning may take place?

But do we not also know, as only a squirming fifth grader can know, that such order, even in mild doses (to say nothing of extreme application), can become exquisitely boring? Boring to the point that learning and boredom are often equated. It somehow seems that if we are not painfully bored, we can't be learning.

I can claim no expertise in the art and science of educating fifth graders, but I can bear testimony to my own experience of that time under the iron hand of Mr. Birdsil. Mr. Birdsil's class was the very model of order. We sat in neat rows and spoke only when spoken to, and then only rarely. Mostly we listened while Mr. Birdsil pontificated on a variety of subjects, the impact of which was so minimal as to be insignificant. Occasionally, perhaps more than occasionally, the endless pontificating would be interrupted by the abusive denunciation of some unfortunate who had fallen asleep. More usually, the denunciation was nonverbal, taking instead the form of a well-placed shot with a blackboard eraser at the sleeping head.

I do, however, remember one significant event. I had a question, and following the required procedure, I raised my hand. When recognized, I began the ritual phrase, "Mr. Birdsil . . . " But instead of "Birdsil," what came out of my mouth was "Birdseed." I am sure the devil made me do it, for I have no consciousness at all of thinking such an outrageous thought. But there it was, hanging in the shocked silence of the awestruck classroom. Mr. Birdsil looked as if the devil himself had put in an unwanted appearance, and carefully laying his chalk and eraser on the desk, he strode with ominous purpose until he towered over me. His face was white with anger except for a little red spot on the tip of his nose, which apparently came from spirit of a different sort. Then he spoke—bellowed would be more accurate—"Owen . . . what did you say?" And before I could even think of a reply, he struck me full force with an open hand in the face. I do remember that. Indeed, that may be the only learning remaining with me from the fifth grade.

Say what you will, my encounter with Mr. Birdsil was different, and in that difference came learning. Not of the best sort perhaps, but learning nonetheless. Fortunately, the balance of my educational career was not a replication of the fifth-grade experience. I came to know that learning, excitement, enthusiasm, and inspiration could all go together. But mostly what I came to know is that learning takes place when difference is perceived. Gregory Bateson was right, the essence of learning is differences that make a difference.

We need not encounter the Birdsils of the world to see Bateson's point. The deep learning moments of our lives should sufficiently make the case. A friend of mine, V.S. Mahesh,[1] made a study of such deep learning moments, and his findings, I think, are quite relevant here. He asked a large group of people (3,000 I believe) to think back to those moments in their lives when they really learned something powerful. Not an academic detail like quadratic equations, but something of deep significance, such as who I am anyhow. Then with that moment in mind he asked them to remember:

- How it felt as they were inching up to that critical time.
- What it was like in the midst of the moment.
- How it felt afterwards.

All the people answered the questions with some variant of the following: Prior to the moment of powerful learning there was a general feeling of dis-ease, what the Germans might call *angst,* which is usually translated as "anxiety," but anxiety of a sort with no particular point of reference: something is happening/going to happen out there and I don't know what it is. In the moment it was experienced as total confusion: chaos. Nothing made sense and everything was strange and different. Once the moment had passed, there was a feeling of relief at a minimum, and more typically triumph. The world, although superficially the same, was very different. Profound learning had taken place, made all too clear in the radical perception of difference.

You needn't take my word nor that of Mahesh. Try the experiment yourself. And when you do I think you will validate the presence and value of chaos in the learning experience, at least in a profound learning experience. It is all about the differences that make a difference.

MUST WE GO ALL THE WAY TO CHAOS?

If learning occurs when differences make a difference, do we have to go all the way to chaos in order to achieve the desired effect? Unfortunately, I think we do, especially in moments of deep learning. But the necessary chaos need not be of the magnitude of a major hurricane. If that were the case, learning of any useful sort would be a very rare phenomenon. In fact I think we are coming to understand that chaos is our constant companion, even though contemporary usage tends to reserve the word for those megabuster situations where everything hits the fan. There is some perceived value in this definition. By using chaos to refer only to situations of ultimate disaster, we can see our lives as being largely without chaos. And that is a great comfort. But that is also a loss.

The loss is incurred by limiting chaos to the more or less extreme cases, blinding us to a truth: everything is a question of scale,[2] and therefore a matter of perspective. Put rather more directly, my chaos can be your minor inconvenience, and vice versa. It all depends on where you sit.

For example, if you as company president conclude that one product line has become unprofitable and therefore must be terminated, that is a minor, everyday business decision for you. However if I am the maker of that product, having defined my past, present, and future in terms of its production, I will see the matter in a rather different light. For me it is chaos.

With an "absolute" definition, we are forced to think in terms of order or chaos, when it is probably more appropriate to think of order *and* chaos, the two constantly in interaction at all levels of scale. In other words, there is never a moment when we do not have chaos heading toward order, or the other way around.

NORMAL LEARNING AND HIGH LEARNING

I am sure there is a place for the ordered classroom. That is the place for Normal Learning, where we ingest all the details, facts, figures, and minutiae needed to get along with life. All of that is necessary, but hardly sufficient. Unless there is some reasonable dose of what I would like to call High Learning, life moves along with monochromatic sameness.

The notions of Normal Learning and High Learning are borrowed (with some alteration) from Thomas Kuhn.[3] Kuhn actually talks about High Science and Normal Science. The former occurs at those moments of paradigm shift, when an old way of conceptualizing the world passes before a new one appears in what is usually a tumultuous, painful event. Normal Science is what occurs after the new paradigm arrives—cleaning up the territory, so to speak.

It is but a small jump, I think, from High Science to High Learning, with only slightly different words for the same thing. Actually *science* comes from the Latin word "to know," which presumably is what learn-

ing is all about. But not all of us are scientists, and therefore we may miss the point. So I prefer the use of the more generic term *learning*. We all learn, but not all of us are Einsteins.

High Learning occurs when chaos cracks the established order, permitting us to see some difference that makes a difference. We find ourselves on a quantum leap past, and through, what we knew before, and on to a new way of perceiving the world. The chaos in question may be minimal as the world may see it, but it is sufficient to open vistas. The issue is always "sufficiency," and never some absolute quantity. After all, butterflies flapping their wings scarcely qualify as mega-events. Normal Learning is what we do after we make the perceptual leap. At some level it amounts to taking stock of the new territory.

THE GIFT OF CHAOS: INNOVATION

Innovation is the gift of chaos, appropriated by High Learning, and made useful through Normal Learning. That rather bald statement encapsulates what I understand to be the central benefit of chaos for our organizations and businesses. Although extreme in appearance, that statement may also make some sense out of the strange phenomenon that all major breakthroughs (no matter how defined) always seem to occur "by mistake," which is a polite way of talking about chaos. I know this is not the way things are supposed to happen, for we would all like to think that our advancement proceeds along an ordered course, well thought out in advance, and definitely according to plan.

A classic case is the discovery of penicillin and with it, the advent of the so-called miracle drugs. According to the story, we never would have had this wonder drug if Sir Alexander Fleming had washed his laboratory dishes. Fortunately, he made a mistake and left a mess over the weekend. Upon his return he found a hairy green substance growing in the dirty dishes. That was disturbing, but what caught his attention (a difference that made a difference) was that where the mold grew, bacteria did not. Naturally, prior training was necessary for him to be able to tell the difference between mold and bacteria, and also to perceive

the lack of bacterial growth as significant. Normal Learning is important. However, it was the *mess* that catapulted Fleming from "more of the same old stuff" into genuine innovation.

Over the years I have collected anecdotal evidence from clients and colleagues concerning the circumstances surrounding real breakthroughs. The interesting thing is that absolutely none of them ever occurred according to plan. While I may have found only what I was looking for (which is usually the case), I am still searching for a breakthrough that happened the way it was supposed to. This search began while I was at the National Institutes of Health (Heart, Lung, and Blood Institute). While there I had the privilege of meeting a number of very senior researchers, including a few Nobel Laureates. My question was always the same: Did they know of any major breakthrough, including their own, which happened according to "the plan"? Nobody seemed to. I have continued this search in areas other than biomedical research, with no positive results to date.

The Birth of Fiberglass: Making Opportunity Out of a Mess

Fiberglass, the discovery and major product of Owens/Corning Fiberglas (OCF), began with a mess. Shortly before World War II, OCF was seriously looking for other ways of using what it knew best, glass-making technology. Up to that point it had largely been making bottles, but with the advent of plastic, it looked as if the bottle market might take a dive. So the search began for new applications and products.

One fine day, their director of research decided that if a way could be found to weld glass blocks (the sort you build transparent walls with), that would be a new, marketable product. I have never been clear exactly why he thought this was so, but he did. In any event, he summoned his research assistant, one Dale Kleist, and directed him to figure out the appropriate means.

Dale obediently assembled a pile of glass blocks, a gas torch, and glass rods, and set about doing what he had been told. Unfortunately the fruits of his labor were not as envisioned. The harder he tried, the

messier things got. As he melted the glass rods with the gas torch, preparatory to "welding," the force of the escaping gas blew the molten glass all over the floor—in long thin fibers. In a very short time, he had accumulated a considerable pile, and so far as he was concerned, the grand experiment was a disastrous mess.

As Kleist was reaching despair, the director returned to the scene of the crime. Kleist was prepared for the worst, but instead of loudly denouncing him for failure, the director was enraptured. What he saw in that mess was the tensile quality of the glass fibers, and fiberglass was born.

The curious thing about this story is that forty years later, when I was consulting with a division of the company, virtually nobody remembered it, except for a few old-timers. That moment in OCF history displayed some useful examples of how to make an opportunity out of a mess.

The situation at OCF was a common one in the 1980s. The corporation had been attacked by a corporate raider, and management was doing its best to hold on. In the final round, management won, but it was a bittersweet victory. In order to meet the ransom the company sold businesses and closed facilities, to the point that once-robust annual sales of $4 billion shrank to a little more than $2 billion.

Even more critical was the fact that, even though not everybody lost their jobs (many folks went with the sold businesses), there was a very significant reduction in the workforce. This meant that the business that remained had to be done with many fewer hands. It is a testimony to those who stayed that they put their best foot forward and rallied the company, but at tremendous cost. Fourteen-hour days, seven days a week, and at the end of six months, these folks were simply exhausted. There comes a point when you can't run any faster; you have to run smarter. But the options for smart running seemed limited indeed. It was a simple case of playing a new ballgame by rules created in the halcyon days when money and staff were no problem.

And they had forgotten their story. Once upon a time, OCF had made opportunity out of a mess, virtue out of a mistake, new business out of

a failed experiment. And doing all that again would be infinitely easier if they could remember having done it once before. No guarantees, of course.

How could they forget their story? The question really bothered me, and I have no certain answer, but I did notice a curious coincidence. Shortly before the fall, OCF was proudly investing an incredible amount of money to support research. Millions of dollars went to maintaining a large research campus, with 1,200 employees. Everything was carefully managed. Programs and systems were piled on top of each other, all dedicated to ensuring the relevance of research to market needs. It was a well-oiled machine with no chaos allowed. There was, however, one small problem. According to local lore, the preceding 10 years of carefully managed research had produced absolutely no new products. Safer products, prettier products. But nothing new.

Given their recent history, it would have been very difficult to admit that everything had begun with a mess. And as a matter of fact, it is quite unlikely that given the way they were doing research, fiberglass would ever have been discovered. Rather, that mass of messy glass fibers would have been swept up, and Dale Kleist directed to take some new approach. After all, you have to stick with the plan. As for the story of Dale Kleist? Better forget the whole thing.

Breakthrough Technology

A research department of DuPont retained my services to assist them in achieving what they called "Breakthrough Technology." Apparently they saw the market taking some interesting, and not necessarily beneficial turns, and thought they should get ahead of the game. In the course of this assignment, I met with the directors of the several local laboratories, and asked them whether they had ever had any breakthroughs, on the grounds that if it had ever happened before, we would at least know what we were looking for.

After some thought, they identified six events that qualified. To this day, I am not entirely sure what they actually were, as each seemed to

involve stranger ways of twisting molecules, none of which I understood. But the directors were satisfied, and that was all that counted.

In order to get some sense of the importance of these breakthroughs, I asked what would be the profitability of their product line had these breakthroughs *not* occurred, and all agreed that the current bottom line results would not be pleasing.

My next question was a little rougher. How many of these breakthroughs, I asked, occurred according to plan, with the right people doing the right thing at the appropriate time and place, all within budget? There was a very long pause. And the answer, when it came, seemed more than a little embarrassing. None.

Then I went to the heart of the matter, and asked whether any of them had almost failed, not for technical reasons, but for other causes. There was an even longer pause, and eventually two candidates were named, but the reasons remained unstated. I asked why, and a young manager answered almost sheepishly, "When we tried to manage them."

It struck me as both strange and sad that the only successes that these folks could identify occurred in spite of their best efforts to do what they were supposed to do: manage. Further, failure loomed when they did their job.

Eventually the silence was broken by the same young manager who had last answered my question. He said, "Harrison, I think we are wasting a lot of our money and your time. All we have to do is do intentionally what it seems we are doing anyhow." I couldn't disagree with him, and that session marked the end of my assignment.

The simple truth of the matter was that these laboratory directors held a notion of research and innovation so predicated on orderly, programmed activity, that they simply couldn't recognize (without prodding) any significant event (read "breakthrough") which occurred outside of their expectations. Obviously they all "knew" that the break-throughs had occurred, but their occurrence was treated as an aberrant phenomenon, an exception to the rule of ordered research. It turned out, of course, that the exception was the rule.

There is nothing approaching proof here, but in 30 years of asking I have never found any person, presumably involved in innovative activities, who could remember any time that the breakthrough occurred according to plan. That may be faulty memory on their part, or faulty listening on mine. But that is the situation, and I believe it is significant.

CHAOS, INSPIRATION, AND SPIRIT

In the presence of breakthrough moments, when High Learning is running at top speed, it is very easy, and probably inevitable, that we should fixate on the concrete results. Penicillin is born, fiberglass invented.

But if we look closer, we are sure to discover something deeper. Call it inspiration-at-work. No matter what the details, we can feel, if not see, the power of the human Spirit breaking boundaries and discovering new ways of being in the world, doing things, getting on with life. It is not always pretty, but it is definitely exciting. It seems that inspiration comes in strange packages with the terrifying label, *Some Assembly Required.*

Once the breakthrough moment has passed, the mess must be cleaned up and ordered processes developed to utilize the new discovery. But the moment itself is special, we might say inspiring, which literally means *in-spirited.* With the presence of chaos, space is opened, and Spirit always seems to show up.

If we miss the presence of Spirit in the white-hot moments of discovery, the presence of Spirit is inescapable in those scary times of organizational meltdown. It may not be a happy Spirit, but there is no question that in those times that truly try our souls, we get right down to basics. Who are we, what are we doing here, and where do we go anyhow?

As the climax approached in the saga of Owens/Corning Fiberglas, senior executives found themselves in a maelstrom of activity. The only certainty was that nothing was certain, and they had to find some new way of doing business that would be acceptable to the banks, stockholders, customers, and employees. The name of the game was reor-

ganization, not once, but dozens of times. Not that each organizational plan was implemented, but many were laid on the table as appropriate fit and function were sought. In the words of the chaos theorists, it was Periodic Doubling with a vengeance, and total chaos was just around the corner.

In the midst of it all, there were periods of momentary respite, even silence, when it became possible, even mandatory, to ask the painful questions: Why bother? What does it all mean? Asking such questions runs the risk of coming up with a troubling answer: there is no reason. And that can sometimes be beneficial.

On the other hand, the posing of the questions can also create deeper opportunities. In the case of at least one OCF executive, I believe that occurred. After most of the dust had settled, this executive reflected on the situation as follows:

We re-reorganized so many times that more than occasionally, I couldn't remember who we were. But the remarkable thing is that through it all we never lost our Spirit. However, if we had lost that, I think we would have lost it all.

The true Spirit of an organization often gets buried in the daily round of important things to be done. For a period of time that situation is of no consequence, for after all, the business is being accomplished. But there comes a time when the state of the Spirit becomes of more than incidental concern.

The initial signs are usually quite small and very forgettable. People just don't seem as involved and excited as they were in the "old days." At first, such observations are passed off as the nostalgic remembrances of the old-timers. But then it seems that something deeper may be involved. Organizational relationships become frayed, tempers snap. Arguments and backbiting break out for no apparent reason. The "zinger" replaces genuine humor in corporate conversation. And the great "They" emerges as the source of all evil. They did this, They didn't do that, but nobody ever saw "They."

Eventually more serious signs of a sagging Spirit surface. Vision goes, innovation slows, and creativity is visible mostly by its absence. Customers go unheard, and quality is only something to talk about. A sagging Spirit is a weak Spirit, which inevitably produces a sagging bottom line. For the truth of the matter is, Spirit is the bottom line.

Coming to this realization, or remembering it, is never a pleasant experience, for it usually occurs in the midst of chaos. At precisely the moment when we need every ounce of spirited participation that we can muster, the Spirit has apparently gone on vacation and off the job. That should come as no surprise, for nobody was taking care of the Spirit. Somehow, it just didn't seem to be an important thing to do.

The Power of Spirit:
How Organizations Transform