Crafting Strategy

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Imagine someone planning strategy. What likely springs to mind is an image of orderly thinking: a senior manager, or a group of them, sitting in an office formulating courses of action that everyone else will implement on schedule. The keynote is reason—rational control, the systematic analysis of competitors and markets, of company strengths and weaknesses, the combination of these analyses producing clear, explicit, full-blown strategies.

Now imagine someone *crafting* strategy. A wholly different image likely results, as different from planning as craft is from mechanization. Craft evokes traditional skill, dedication, perfection through the mastery of detail. What springs to mind is not so much thinking and reason as involvement, a feeling of intimacy and harmony with the materials at hand, developed through long experience and commitment. Formulation and implementation merge into a fluid process of learning through which creative strategies evolve.

My thesis is simple: the crafting image better captures the process by which effective strategies come to be. The planning image, long popular in the literature, distorts these processes and thereby misguides organizations that embrace it unreservedly.

In developing this thesis, I shall draw on the experiences of a single craftsman, a potter, and compare them with the results of a research project that tracked the strategies of a number of corporations across several decades. Because the two contexts are so obviously different, my metaphor, like my assertion, may seem farfetched at first. Yet if we think of a craftsman as an organization of one, we can see that he or she must also resolve one of the great challenges the corporate strategist faces: knowing the organization's capabilities well enough to think deeply enough about its strategic direction. By considering strategy making from the perspective of one person, free of all the paraphernalia of what has been called the strategy industry, we can learn something about the formation of strategy in the corporation. For much as our potter has to manage her craft, so too managers have to craft their strategy.

At work, the potter sits before a lump of clay on the wheel. Her mind is on the clay, but she is also aware of sitting between her past experiences and her future prospects. She knows exactly what has and has not worked for her in the past. She has an intimate knowledge of her work, her capabilities, and her markets. As a craftsman, she senses rather than analyzes these things; her knowledge is "tacit." All these things are working in her mind as her hands are working the clay. The product that emerges on the wheel is likely to be in the tradition of her past work, but she may break away and embark on a new direction. Even so, the past is no less present, projecting itself into the future.

In my metaphor, managers are craftsmen and strategy is their clay. Like the potter, they sit between a past of corporate capabilities and a future of market

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opportunities. And if they are truly craftsmen, they bring to their work an equally intimate knowledge of the materials at hand. That is the essence of crafting strategy.

In the pages that follow, we will explore this metaphor by looking at how strategies get made as opposed to how they are supposed to get made. Throughout, I will be drawing on the two sets of experiences I've mentioned. One, described in the insert, is a research project on patterns in strategy formation that has been going on at McGill University under my direction since 1971. The second is the stream of work of a successful potter, my wife, who began her craft in 1967.

Ask almost anyone what strategy is, and they will define it as a plan of some sort, an explicit guide to future behavior. Then ask them what strategy a competitor or a government or even they themselves have actually pursued. Chances are they will describe consistency in *past* behavior—a pattern in action over time. Strategy, it turns out, is one of those words that people define in one way and often use in another, without realizing the difference.

The reason for this is simple. Strategy's formal definition and its Greek military origins notwithstanding, we need the word as much to explain past actions as to describe intended behavior. After all, if strategies can be planned and intended, they can also be pursued and realized (or not realized, as the case may be). And pattern in action, or what we call realized strategy, explains that pursuit. Moreover, just as a plan need not produce a pattern (some strategies that are intended are simply not realized), so too a pattern need not result from a plan. An organization can have a pattern (or realized strategy) without knowing it, let alone making it explicit.

Patterns, like beauty, are in the mind of the beholder, of course. But anyone reviewing a chronological lineup of our craftsman's work would have little trouble discerning clear patterns, at least in certain periods. Until 1974, for example, she made small, decorative ceramic animals and objects of various kinds. Then this "knickknack strategy" stopped abruptly, and eventually new patterns formed around waferlike sculptures and ceramic bowls, highly textured and unglazed.

Finding equivalent patterns in action for organizations isn't that much more difficult. Indeed, for such large companies as Volkswagenwerk and Air Canada, in our research, it proved simpler! (As well it should. A craftsman, after all, can change what she does in a studio a lot more easily than a Volkswagenwerk can retool its assembly lines.) Mapping the product models at Volkswagenwerk from the late 1940s to the late 1970s, for example, uncovers a clear pattern of concentration on the Beetle, followed in the late 1960s by a frantic search for replacements through acquisitions and internally developed new models, to a strategic reorientation around more stylish, water-cooled, frontwheel-drive vehicles in the mid-1970s.

But what about intended strategies, those formal plans and pronouncements we think of when we use the term *strategy?* Ironically, here we run into all kinds of problems. Even with a single craftsman, how can we know what her intended strategies really were? If we could go back, would we find expressions of intention? And if we could, would we be able to trust them? We often fool ourselves, as well as others, by denying our subconscious motives. And remember that intentions are cheap, at least when compared with realizations.

Reading the organization's mind

If you believe all this has more to do with the Freudian recesses of a craftsman's mind than with the practical realities of producing automobiles, then think again. For who knows what the intended strategies of a Volkswagenwerk really mean, let alone what they are? Can we simply assume in this collective context that the company's intended strategies are represented by its formal plans or by other statements emanating from the executive suite? Might these be just vain hopes or rationalizations or ploys to fool the competition? And even if expressed intentions exist, to what extent do others in the organization share them? How do we read the collective mind? Who is the strategist anyway?

The traditional view of strategic management resolves these problems quite simply, by what organizational theorists call attribution. You see it all the time in the business press. When General Motors acts, it's because Roger Smith has made a strategy. Given realization, there must have been intention, and that is automatically attributed to the chief.

In a short magazine article, this assumption is understandable. Journalists don't have a lot of time to uncover the origins of strategy, and GM is a large, complicated organization. But just consider all the complexity and confusion that gets tucked under this assumption—all the meetings and debates, the many people, the dead ends, the folding and unfolding of ideas. Now imagine trying to build a formal strategy-making system around that assumption. Is it any wonder that formal strategic planning is often such a resounding failure?

To unravel some of the confusion—and move away from the artificial complexity we have piled around the strategy-making process—we need to get back to some basic concepts. The most basic of all is the intimate connection between thought and action. That is the key to craft, and so also to the crafting of strategy.

Virtually everything that has been written about strategy making depicts it as a deliberate process. First we think, then we act. We formulate, then we implement. The progression seems so perfectly sensible. Why would anybody want to proceed differently?

Our potter is in the studio, rolling the clay to make a waferlike sculpture. The clay sticks to the rolling pin, and a round form appears. Why not make a cylindrical vase? One idea leads to another, until a new pattern forms. Action has driven thinking: a strategy has emerged.

Out in the field, a salesman visits a customer. The product isn't quite right, and together they work out some modifications. The salesman returns to his company and puts the changes through; after two or three more rounds, they finally get it right. A new product emerges, which eventually opens up a new market. The company has changed strategic course.

In fact, most salespeople are less fortunate than this one or than our craftsman. In an organization of one, the implementor is the formulator, so innovations can be incorporated into strategy quickly and easily. In a large organization, the innovator may be ten levels removed from the leader who is supposed to dictate strategy and may also have to sell the idea to dozens of peers doing the same job.

Some salespeople, of course, can proceed on their own, modifying products to suit their customers and convincing skunkworks in the factory to produce them. In effect, they pursue their own strategies. Maybe no one else notices or cares. Sometimes, however, their innovations do get noticed, perhaps years later, when the company's prevalent strategies have broken down and its leaders are groping for something new. Then the salesperson's strategy may be allowed to pervade the system, to become organizational.

Is this story farfetched? Certainly not. We've all heard stories like it. But since we tend to see only what we believe, if we believe that strategies have to be planned, we're unlikely to see the real meaning such stories hold.

Consider how the National Film Board of Canada (NFB) came to adopt a feature-film strategy. The NFB is a federal government agency, famous for its creativity and expert in the production of short documentaries. Some years back, it funded a filmmaker on a project that unexpectedly ran long. To distribute his film, the NFB turned to theaters and so inadvertently gained experience in marketing feature-length films. Other filmmakers caught onto the idea, and eventually the NFB found itself pursuing a feature-film strategy—a pattern of producing such films.

My point is simple, deceptively simple: strategies can *form* as well as be *formulated.* A realized strategy can emerge in response to an evolving situation, or it can be brought about deliberately, through a process of formulation followed by implementation. But when these planned intentions do not produce the desired actions, organizations are left with unrealized strategies.

Today we hear a great deal about unrealized strategies, almost always in concert with the claim that implementation has failed. Management has been lax, controls have been loose, people haven't been committed. Excuses abound. At times, indeed, they may be valid. But often these explanations prove too easy. So some people look beyond implementation to formulation. The strategists haven't been smart enough.

While it is certainly true that many intended strategies are ill conceived, I believe that the problem often lies one step beyond, in the distinction we make between formulation and implementation, the common assumption that thought must be independent of (and precede) action. Sure, people could be smarter—but not only by conceiving more clever strategies. Sometimes they can be smarter by allowing their strategies to develop gradually, through the organization's actions and experiences. Smart strategists appreciate that they cannot always be smart enough to think through everything in advance.

Hands & minds

No craftsman thinks some days and works others. The craftsman's mind is going constantly, in tandem with her hands. Yet large organizations try to separate the work of minds and hands. In so doing, they often sever the vital feedback link between the two. The salesperson who finds a customer with an unmet need may possess the most strategic bit of information in the entire organization. But that information is useless if he or she cannot create a strategy in response to it or else convey the information to someone who can—because the channels are blocked or because the formulators have simply finished formulating. The notion that strategy is something that should happen way up there, far removed from the details of running an organization on a daily basis, is one of the great fallacies of conventional strategic management. And it explains a good many of the most dramatic failures in business and public policy today.

We at McGill call strategies like the NFB's that appear without clear intentions—or in spite of them—emergent strategies. Actions simply converge into patterns. They may become deliberate, of course, if the pattern is recognized and then legitimated by senior management. But that's after the fact.

All this may sound rather strange, I know. Strategies that emerge? Managers who acknowledge strategies already formed? Over the years, our research group at McGill has met with a good deal of resistance from people upset by what they perceive to be our passive definition of a word so bound up with proactive behavior and free will. After all, strategy means control—the ancient Greeks used it to describe the art of the army general.

Strategic learning

But we have persisted in this usage for one reason: learning. Purely deliberate strategy precludes learning once the strategy is formulated; emergent strategy fosters it. People take actions one by one and respond to them, so that patterns eventually form.

Our craftsman tries to make a freestanding sculptural form. It doesn't work, so she rounds it a bit here, flattens it a bit there. The result looks better, but still isn't quite right. She makes another and another and another. Eventually, after days or months or years, she finally has what she wants. She is off on a new strategy.

In practice, of course, all strategy making walks on two feet, one deliberate, the other emergent. For just as purely deliberate strategy making precludes learning, so purely emergent strategy making precludes control. Pushed to the limit, neither approach makes much sense. Learning must be coupled with control. That is why the McGill research group uses the word *strategy* for both emergent and deliberate behavior.

Likewise, there is no such thing as a purely deliberate strategy or a purely emergent one. No organization—not even the ones commanded by those ancient Greek generals—knows enough to work everything out in advance, to ignore learning en route. And no one—not even a solitary potter—can be flexible enough to leave everything to happenstance, to give up all control. Craft requires control just as it requires responsiveness to the material at hand. Thus deliberate and emergent strategy form the end points of a continuum along which the strategies that are crafted in the real world may be found. Some strategies may approach either end, but many more fall at intermediate points.

Effective strategies can show up in the strangest places and develop through the most unexpected means. There is no one best way to make strategy.

The form for a cat collapses on the wheel, and our potter sees a bull taking shape. Clay sticks to a rolling pin, and a line of cylinders results. Wafers come into being because of a shortage of clay and limited kiln space in a studio in France. Thus errors become opportunities, and limitations stimulate creativity. The natural propensity to experiment, even boredom, likewise stimulate strategic change.

Organizations that craft their strategies have similar experiences. Recall the National Film Board with its inadvertently long film. Or consider its experiences with experimental films, which made special use of animation and sound. For 20 years, the NFB produced a bare but steady trickle of such films. In fact, every film but one in that trickle was produced by a single person, Norman McLaren, the NFB's most celebrated filmmaker. McLaren pursued a *personal strategy* of experimentation, deliberate for him perhaps (though who can know whether he had the whole stream in mind or simply planned one film at a time?) but not for the organization. Then 20 years later, others followed his lead and the trickle widened, his personal strategy becoming more broadly organizational.

Conversely, in 1952, when television came to Canada, a *consensus strategy* quickly emerged at the NFB. Senior management was not keen on producing films for the new medium. But while the arguments raged, one filmmaker quietly went off and made a single series for TV. That precedent set, one by one his colleagues leapt in, and within months the NFB—and its management—found themselves committed for several years to a new strategy with an intensity unmatched before or since. This consensus strategy arose spontaneously, as a result of many independent decisions made by the filmmakers about the films they wished to make. Can we call this strategy deliberate? For the filmmakers perhaps; for senior management certainly not. But for the organization? It all depends on your perspective, on how you choose to read the organization's mind.

While the NFB may seem like an extreme case, it highlights behavior that can be found, albeit in muted form, in all organizations. Those who doubt this might read Richard Pascale's account of how Honda stumbled into its enormous success in the American motorcycle market. Brilliant as its strategy may have looked after the fact, Honda's managers made almost every conceivable mistake until the market finally hit them over the head with the right formula. The Honda managers on site in America, driving their products themselves (and thus inadvertently picking up market reaction), did only one thing right: they learned, firsthand.[1]

Grass-roots strategy making

These strategies all reflect, in whole or part, what we like to call a grass-roots approach to strategic

1. Richard T. Pascale, "Perspective on Strategy: The Real Story Behind Honda's Success," *California Management Review,* May–June 1984, p. 47.

management. Strategies grow like weeds in a garden. They take root in all kinds of places, wherever people have the capacity to learn (because they are in touch with the situation) and the resources to support that capacity. These strategies become organizational when they become collective, that is, when they proliferate to guide the behavior of the organization at large.

Of course, this view is overstated. But it is no less extreme than the conventional view of strategic management, which might be labeled the hothouse approach. Neither is right. Reality falls between the two. Some of the most effective strategies we uncovered in our research combined deliberation and control with flexibility and organizational learning.

Consider first what we call the *umbrella strategy.* Here senior management sets out broad guidelines (say, to produce only high-margin products at the cutting edge of technology or to favor products using bonding technology) and leaves the specifics (such as what these products will be) to others lower down in the organization. This strategy is not only deliberate (in its guidelines) and emergent (in its specifics), but it is also deliberately emergent in that the process is consciously managed to allow strategies to emerge en route. IBM used the umbrella strategy in the early 1960s with the impending 360 series, when its senior management approved a set of broad criteria for the design of a family of computers later developed in detail throughout the organization.[2]

Deliberately emergent, too, is what we call the *process strategy.* Here management controls the process of strategy formation—concerning itself with the design of the structure, its staffing, procedures, and so on—while leaving the actual content to others. Both process and umbrella strategies seem to be especially prevalent in businesses that require great expertise and creativity—a 3M, a Hewlett-Packard, a National Film Board. Such organizations can be effective only if their implementors are allowed to be formulators because it is people way down in the hierarchy who are in touch with the situation at hand and have the requisite technical expertise. In a sense, these are organizations peopled with craftsmen, all of whom must be strategists.

The conventional view of strategic management, especially in the planning literature, claims that change must be continuous: the organization should be adapting all the time. Yet this view proves to be ironic because the very concept of strategy is rooted in stability, not change. As this same literature makes clear, organizations pursue strategies to set direction, to lay out courses of action, and to elicit cooperation from their members around common, established guidelines. By any definition, strategy imposes stability on an organization. No stability means no strategy (no course to the future, no pattern from the past). Indeed, the very fact of having a strategy, and especially of making it explicit (as the conventional literature implores managers to do), creates resistance to strategic change!

What the conventional view fails to come to grips with, then, is how and when to promote change. A fundamental dilemma of strategy making is the need to reconcile the forces for stability and for change—to focus efforts and gain operating efficiencies on the one hand, yet adapt and maintain currency with a changing external environment on the other.

Quantum leaps

Our own research and that of colleagues suggest that organizations resolve these opposing forces by attending first to one and then to the other. Clear periods of stability and change can usually be distinguished in any organization: while it is true that particular strategies may always be changing marginally, it seems equally true that major shifts in strategic orientation occur only rarely.

In our study of Steinberg Inc., a large Quebec supermarket chain headquartered in Montreal, we found only two important reorientations in the 60 years from its founding to the mid-1970s: a shift to self-service in 1933 and the introduction of shopping centers and public financing in 1953. At Volkswagenwerk, we saw only one between the late 1940s and the 1970s, the tumultuous shift from the traditional Beetle to the Audi-type design mentioned earlier. And at Air Canada, we found none over the airline's first four decades, following its initial positioning.

Our colleagues at McGill, Danny Miller and Peter Friesen, found this pattern of change so common in their studies of large numbers of companies (especially the high-performance ones) that they built a theory around it, which they labeled the quantum theory of strategic change.[3] Their basic point is that organizations adopt two distinctly different modes of behavior at different times.

Most of the time they pursue a given strategic orientation. Change may seem continuous, but it occurs in the context of that orientation (perfecting a given retailing formula, for example) and usually amounts to doing more of the same, perhaps better

2. James Brian Quinn, IBM (A) case, in James Brian Quinn, Henry Mintzberg, and Robert M. James, *The Strategy Process: Concepts, Contexts, Cases* (Englewood Cliffs, N.J.: Prentice-Hall, forthcoming).

3. See Danny Miller and Peter H. Friesen, *Organizations: A Quantum View* (Englewood Cliffs, N.J.: Prentice-Hall, 1984).

as well. Most organizations favor these periods of stability because they achieve success not by changing strategies but by exploiting the ones they have. They, like craftsmen, seek continuous improvement by using their distinctive competencies in established courses.

While this goes on, however, the world continues to change, sometimes slowly, occasionally in dramatic shifts. Thus gradually or suddenly, the organization's strategic orientation moves out of sync with its environment. Then what Miller and Friesen call a strategic revolution must take place. That long period of evolutionary change is suddenly punctuated by a brief bout of revolutionary turmoil in which the organization quickly alters many of its established patterns. In effect, it tries to leap to a new stability quickly to reestablish an integrated posture among a new set of strategies, structures, and culture.

But what about all those emergent strategies, growing like weeds around the organization? What the quantum theory suggests is that the really novel ones are generally held in check in some corner of the organization until a strategic revolution becomes necessary. Then as an alternative to having to develop new strategies from scratch or having to import generic strategies from competitors, the organization can turn to its own emerging patterns to find its new orientation. As the old, established strategy disintegrates, the seeds of the new one begin to spread.

This quantum theory of change seems to apply particularly well to large, established, mass-production companies. Because they are especially reliant on standardized procedures, their resistance to strategic reorientation tends to be especially fierce. So we find long periods of stability broken by short disruptive periods of revolutionary change.

Volkswagenwerk is a case in point. Long enamored of the Beetle and armed with a tightly integrated set of strategies, the company ignored fundamental changes in its markets throughout the late 1950s and 1960s. The bureaucratic momentum of its mass-production organization combined with the psychological momentum of its leader, who institutionalized the strategies in the first place. When change finally did come, it was tumultuous: the company groped its way through a hodgepodge of products before it settled on a new set of vehicles championed by a new leader. Strategic reorientations really are cultural revolutions.

Cycles of change

In more creative organizations, we see a somewhat different pattern of change and stability, one that's more balanced. Companies in the business of producing novel outputs apparently need to fly off in all directions from time to time to sustain their creativity. Yet they also need to settle down after such periods to find some order in the resulting chaos.

The National Film Board's tendency to move in and out of focus through remarkably balanced periods of convergence and divergence is a case in point. Concentrated production of films to aid the war effort in the 1940s gave way to great divergence after the war as the organization sought a new raison d'être. Then the advent of television brought back a very sharp focus in the early 1950s, as noted earlier. But in the late 1950s, this dissipated almost as quickly as it began, giving rise to another creative period of exploration. Then the social changes in the early 1960s evoked a new period of convergence around experimental films and social issues.

We use the label "adhocracy" for organizations, like the National Film Board, that produce individual, or custom-made, products (or designs) in an innovative way, on a project basis.[4] Our craftsman is an adhocracy of sorts too, since each of her ceramic sculptures is unique. And her pattern of strategic change was much like that of the NFB's, with evident cycles of convergence and divergence: a focus on knickknacks from 1967 to 1972; then a period of exploration to about 1976, which resulted in a refocus on ceramic sculptures; that continued to about 1981, to be followed by a period of searching for new directions. More recently, a focus on ceramic murals seems to be emerging.

Whether through quantum revolutions or cycles of convergence and divergence, however, organizations seem to need to separate in time the basic forces for change and stability, reconciling them by attending to each in turn. Many strategic failures can be attributed either to mixing the two or to an obsession with one of these forces at the expense of the other.

The problems are evident in the work of many craftsmen. On the one hand, there are those who seize on the perfection of a single theme and never change. Eventually the creativity disappears from their work and the world passes them by—much as it did Volkswagenwerk until the company was shocked into its strategic revolution. And then there are those who are always changing, who flit from one idea to another and never settle down. Because no theme or strategy ever emerges in their work, they cannot exploit or even develop any distinctive competence. And because their work lacks defini-

4. See my article "Organization Design: Fashion or Fit?" HBR January–February 1981, p. 103; also see my book *Structure in Fives: Designing Effective Organizations* (Englewood Cliffs, N.J.: Prentice-Hall, 1983). The term *adhocracy* was coined by Warren G. Bennis and Philip E. Slater in *The Temporary Society* (New York: Harper & Row, 1964).

tion, identity crises are likely to develop, with neither the craftsmen nor their clientele knowing what to make of it. Miller and Friesen found this behavior in conventional business too; they label it "the impulsive firm running blind."[5] How often have we seen it in companies that go on acquisition sprees?

The popular view sees the strategist as a planner or as a visionary, someone sitting on a pedestal dictating brilliant strategies for everyone else to implement. While recognizing the importance of thinking ahead and especially of the need for creative vision in this pedantic world, I wish to propose an additional view of the strategist—as a pattern recognizer, a learner if you will—who manages a process in which strategies (and visions) can emerge as well as be deliberately conceived. I also wish to redefine that strategist, to extend that someone into the collective entity made up of the many actors whose interplay speaks an organization's mind. This strategist *finds* strategies no less than creates them, often in patterns that form inadvertently in its own behavior.

What, then, does it mean to craft strategy? Let us return to the words associated with craft: dedication, experience, involvement with the material, the personal touch, mastery of detail, a sense of harmony and integration. Managers who craft strategy do not spend much time in executive suites reading MIS reports or industry analyses. They are involved, responsive to their materials, learning about their organizations and industries through personal touch. They are also sensitive to experience, recognizing that while individual vision may be important, other factors must help determine strategy as well.

Manage stability

Managing strategy is mostly managing stability, not change. Indeed, most of the time senior managers should not be formulating strategy at all; they should be getting on with making their organizations as effective as possible in pursuing the strategies they already have. Like distinguished craftsmen, organizations become distinguished because they master the details.

To manage strategy, then, at least in the first instance, is not so much to promote change as to know *when* to do so. Advocates of strategic planning often urge managers to plan for perpetual instability in the environment (for example, by rolling over five-year plans annually). But this obsession with change is dysfunctional. Organizations that reassess their strategies continuously are like individuals who reassess their jobs or their marriages continuously—in both cases, people will drive themselves crazy or else reduce themselves to inaction. The formal planning process repeats itself so often and so mechanically that it desensitizes the organization to real change, programs it more and more deeply into set patterns, and thereby encourages it to make only minor adaptations.

So-called strategic planning must be recognized for what it is: a means, not to create strategy, but to program a strategy already created—to work out its implications formally. It is essentially analytic in nature, based on decomposition, while strategy creation is essentially a process of synthesis. That is why trying to create strategies through formal planning most often leads to extrapolating existing ones or copying those of competitors.

This is not to say that planners have no role to play in strategy formation. In addition to programming strategies created by other means, they can feed ad hoc analyses into the strategy-making process at the front end to be sure that the hard data are taken into consideration. They can also stimulate others to think strategically. And of course people called planners can be strategists too, so long as they are creative thinkers who are in touch with what is relevant. But that has nothing to do with the technology of formal planning.

Detect discontinuity

Environments do not change on any regular or orderly basis. And they seldom undergo continuous dramatic change, claims about our "age of discontinuity" and environmental "turbulence" notwithstanding. (Go tell people who lived through the Great Depression or survivors of the siege of Leningrad during World War II that ours are turbulent times.) Much of the time, change is minor and even temporary and requires no strategic response. Once in a while there is a truly significant discontinuity or, even less often, a gestalt shift in the environment, where everything important seems to change at once. But these events, while critical, are also easy to recognize.

The real challenge in crafting strategy lies in detecting the subtle discontinuities that may undermine a business in the future. And for that, there is no technique, no program, just a sharp mind in touch with the situation. Such discontinuities are unexpected and irregular, essentially unprecedented. They can be dealt with only by minds that are attuned to existing patterns yet able to perceive important breaks in them. Unfortunately, this form of strategic thinking tends to atrophy during the long periods of stability that most organizations experience (just as it did at Volkswagenwerk during the 1950s and 1960s). So the trick is to manage within a given strategic orientation most of the time yet be

5. Danny Miller and Peter H. Friesen, "Archetypes of Strategy Formulation," *Management Science,* May 1978, p. 921.

able to pick out the occasional discontinuity that really matters.

The Steinberg chain was built and run for more than half a century by a man named Sam Steinberg. For 20 years, the company concentrated on perfecting a self-service retailing formula introduced in 1933. Installing fluorescent lighting and figuring out how to package meat in cellophane wrapping were the "strategic" issues of the day. Then in 1952, with the arrival of the first shopping center in Montreal, Steinberg realized he had to redefine his business almost overnight. He knew he needed to control those shopping centers and that control would require public financing and other major changes. So he reoriented his business. The ability to make that kind of switch in thinking is the essence of strategic management. And it has more to do with vision and involvement than it does with analytic technique.

Know the business

Sam Steinberg was the epitome of the entrepreneur, a man intimately involved with all the details of his business, who spent Saturday mornings visiting his stores. As he told us in discussing his company's competitive advantage.

"Nobody knew the grocery business like we did. Everything has to do with your knowledge. I knew merchandise, I knew cost, I knew selling, I knew customers. I knew everything, and I passed on all my knowledge; I kept teaching my people. That's the advantage we had. Our competitors couldn't touch us."

Note the kind of knowledge involved: not intellectual knowledge, not analytical reports or abstracted facts and figures (though these can certainly help), but personal knowledge, intimate understanding, equivalent to the craftsman's feel for the clay. Facts are available to anyone; this kind of knowledge is not. Wisdom is the word that captures it best. But wisdom is a word that has been lost in the bureaucracies we have built for ourselves, systems designed to distance leaders from operating details. Show me managers who think they can rely on formal planning to create their strategies, and I'll show you managers who lack intimate knowledge of their businesses or the creativity to do something with it.

Craftsmen have to train themselves to see, to pick up things other people miss. The same holds true for managers of strategy. It is those with a kind of peripheral vision who are best able to detect and take advantage of events as they unfold.

Manage patterns

Whether in an executive suite in Manhattan or a pottery studio in Montreal, a key to managing strategy is the ability to detect emerging patterns and help them take shape. The job of the manager is not just to preconceive specific strategies but also to recognize their emergence elsewhere in the organization and intervene when appropriate.

Like weeds that appear unexpectedly in a garden, some emergent strategies may need to be uprooted immediately. But management cannot be too quick to cut off the unexpected, for tomorrow's vision may grow out of today's aberration. (Europeans, after all, enjoy salads made from the leaves of the dandelion, America's most notorious weed.) Thus some patterns are worth watching until their effects have more clearly manifested themselves. Then those that prove useful can be made deliberate and be incorporated into the formal strategy, even if that means shifting the strategic umbrella to cover them.

To manage in this context, then, is to create the climate within which a wide variety of strategies can grow. In more complex organizations, this may mean building flexible structures, hiring creative people, defining broad umbrella strategies, and watching for the patterns that emerge.

Reconcile change and continuity

Finally, managers considering radical departures need to keep the quantum theory of change in mind. As Ecclesiastes reminds us, there is a time to sow and a time to reap. Some new patterns must be held in check until the organization is ready for a strategic revolution, or at least a period of divergence. Managers who are obsessed with either change or stability are bound eventually to harm their organizations. As pattern recognizer, the manager has to be able to sense when to exploit an established crop of strategies and when to encourage new strains to displace the old.

While strategy is a word that is usually associated with the future, its link to the past is no less central. As Kierkegaard once observed, life is lived forward but understood backward. Managers may have to live strategy in the future, but they must understand it through the past.

Like potters at the wheel, organizations must make sense of the past if they hope to manage the future. Only by coming to understand the patterns that form in their own behavior do they get to know their capabilities and their potential. Thus crafting strategy, like managing craft, requires a natural synthesis of the future, present, and past.

Tracking strategy

In 1971, I became intrigued by an unusual definition of strategy as a pattern in a stream of decisions (later changed to actions). I initiated a research project at McGill University, and over the next 13 years a team of us tracked the strategies of 11 organizations over several decades of their history. (Students at various levels also carried out about 20 other less comprehensive studies.) The organizations we studied were: Air Canada (1937-1976), Arcop, an architectural firm (1953-1978), Asbestos Corporation (1912-1975), Canadelle, a manufacturer of women's undergarments (1939-1976), McGill University (1829-1980), the National Film Board of Canada (1939-1976), Saturday Night Magazine (1928-1971), the Sherbrooke Record, a small daily newspaper (1946-1976), Steinberg Inc., a large supermarket chain (1917-1974), the U.S. military's strategy in Vietnam (1949-1973), and Volkswagenwerk (1934-1974).

As a first step, we developed chronological lists and graphs of the most important actions taken by each organization—such as store openings and closings, new flight destinations, and new product introductions. Second, we inferred patterns in these actions and labeled them as strategies.

Third, we represented graphically all the strategies we inferred in an organization so that we could line them up to see whether there were distinct periods in their development—for example, periods of stability, flux, or global change. Fourth, we used interviews and in-depth reports to study what appeared to be the key points of change in each organization's strategic history.

Finally, armed with all this strategic history, the research team studied each set of findings to develop conclusions about the process of strategy formation. Three themes guided us: the interplay of environment, leadership, and organization; the pattern of strategic change; and the processes by which strategies form. This article presents those conclusions.

Author's Note: Readers interested in learning more about the results of the tracking strategy project have a wide range of studies to draw from. Works published to date can be found in Robert Lamb and Paul Shivastava, eds., *Advances in Strategic Management,* Vol. 4 (Greenwich, Conn.: Jai Press, 1986), pp. 3–41; *Management Science,* May 1978, p. 934; *Administrative Science Quarterly,* June 1985, p. 160; J. Grant, ed., *Strategic Management Frontiers* (Greenwich, Conn.: Jai Press, forthcoming); *Canadian Journal of Administrative Sciences,* June 1984, p. 1; *Academy of Management Journal,* September 1982, p. 465; Robert Lamb, ed., *Competitive Strategic Management* (Englewood Cliffs, N.J.: Prentice-Hall, 1984).