Metanoic Organizations in the Transition to a Sustainable Society

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Two distinct, long-term dynamics are now merging to create unique forces for social change: One is the life cycle of industrial growth; the other is the economic long wave. The life cycle is a one-time phenomenon, based on depletion of finite natural resources such as land, oil, natural gas, water, and the capacity to dissipate pollution. Abundant resources, often at diminishing real costs, gave rise to a period of unprecedented industrial expansion with little attention to the longer-term consequences of growth for the environment.

During the transition to a postindustrial society, the interdependencies between the economic system and the environment become clear, with a concomitant shift in attitudes and values. *The Limits to Growth* by Meadows et al. and subsequent studies point to the present as a time of unprecedented stress, where the attitudes, values, and expectations of the industrial-growth era are challenged for the first time. Pitirim Sorokin, founder of the department of sociology at Harvard University, forecast over a half-century ago that industrial society would become increasingly disillusioned with its materialistic goals, decline, and then perhaps reemerge as an "integral culture" characterized by a balance between material and spiritual values. With 20 years of survey evidence, Daniel Yankelovich today sees just such a shift. He argues that "instrumentalism," which views material possessions as the instruments for generating satisfaction, is gradually being supplanted by a "sacred" outlook that seeks the intrinsic value of human experience in the family and the workplace.

The transition to a postindustrial economy spans probably 30–50 years. What makes the 1980s a period of particularly rapid change is the concurrent cresting of the economic long wave or Kondratieff wave. This is historically a period of economic stagnation, as the major depressions of the 1830s, 1880s–1890s, and 1930s show; but it is also a period of experimentation and innovation. Economic growth since World War II has been built primarily on a series of remarkable innovations—television, jet propulsion, digital computation—that came to light in the 1930s and 1940s, that is, during the last long-wave transition.
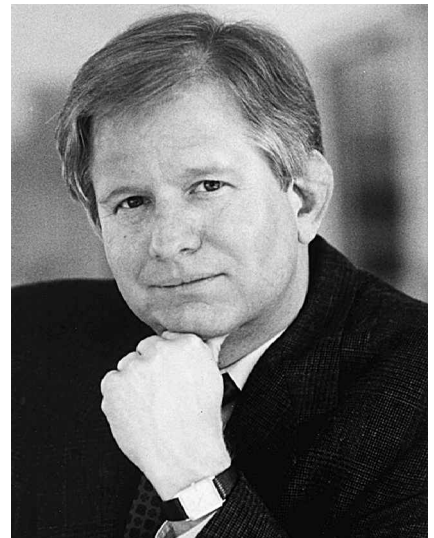
The long-wave transition is a period of great stress for private business. Bankruptcies are high, particularly in older, traditional industries. Pressures to cut costs and maximize flexibility handicap the top-heavy bureaucracies of the former period of relatively stable growth. Economic conditions favor more resilient organizations that can adapt to complex technological and market changes.

The convergence of the life cycle of industrial development and the economic long wave is causing fundamental changes in the business environment. The life cycle is creating fundamental shifts in values and attitudes. The long wave is creating extreme economic stress. A small but significant number of American corporations are emerging as prototypes of a new kind of or-

Foreword

When we wrote this article more than 17 years ago, its ideas made great sense to us. Moreover, they arose from approximately 10 years of experience from consulting and workshops with senior and midlevel managers. However, to say the least, they were "on the fringe" of management theory and practice. Looking back now, we are surprised to see how widely some of these ideas have spread—such ideas as vision, alignment, empowerment of people, systems thinking, and more decentralized organization designs.

None of this, however, means that the notion of metanoia, a fundamental movement of mind, is either well understood or widely embodied in today's organizations. In some ways, the more that basic ideas become familiar to

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us, the more easily may the deeper meanings that lie behind them elude our grasp. We all speak the proper words but, in so doing, may mislead ourselves into thinking that new words mean new understanding and new practices. Everywhere today people speak of "vision," but how many think about purposefulness, what it would mean if each and every person worked from a deep sense of their work? Likewise, *empowerment* has become a buzzword in recent years, but how many have actually thought about the key assumptions that lie behind it—assumptions both about people and about the inability to control complex living systems from the top? The same rise in popularity seems now to be happening with so-called systems thinking; yet, how many organizations actually are seriously investing in developing new capabilities by which to understand cause and effect as distant in time and space? How many are starting to escape the addiction to "quick fix–itis" that afflicts industrial-age institutions, the incessant focus on short-term fixes that end up creating more damage in the long term?

Looking now at this article, we can see the flaws in the picture we painted 17 years ago. For example, we surely gave too little attention to the importance of learning processes that can increase the intelligence of local decision makers and align local actions across large organizations. The absence of such learning processes can prove fatal for inspired innovators seeking to empower and decentralize. At the time, we had little experience with the extraordinary personal, political, and cultural challenges involved in redistributing power in large enterprises. We talked in the article mostly of younger, smaller enterprises and neglected the important questions of bringing about change in large, tradition-bound institutions. These are things about which we have all been learning a good deal in recent years.

All in all, we found that rereading our ruminations of many years ago left us proud of sticking our necks out and encouraged us— all of us—to be bolder in moving forward. Likely, the next 17 years will bring no less dramatic changes than have the last 17.

ganization. We call them "metanoic" organizations, from a Greek word meaning a fundamental shift of mind. The term was used by early Christians to describe the reawakening of intuition and vision. These organizations operate with a conviction that they can shape their destiny. They nurture understanding of and responsibility for the larger social systems within which the individual operates. Their role in the transition to a sustainable society is vital, for metanoic organizations evidence a unique sense of corporate responsibility for the larger social systems within which the individual operates. Their role in the transition to a sustainable society is vital, for metanoic organizations evidence a unique sense of corporate responsibility. Unlike the defensive, narrowly self-serving nature of most "corporate responsibility" programs, the activism of metanoic organizations centers on the long-term viability and vitality of the larger social system within which the organization operates.

Metanoic Organizations

We use the term "metanoic organization" to describe a unifying principle underlying a broad base of contemporary organizational innovations: that individuals aligned around an appropriate vision can have extraordinary influence in the world. Antecedents of the metanoic organization can be found in many places: the management theories of Douglas MacGregor, for example; the writings of systems theorists like Jay Forrester, and the basic beliefs in freedom and self-determination expressed in the founding of this country. In metanoic organizations, these beliefs form a coherent organizational philosophy with four primary dimensions: (1) a deep sense of vision, or purposefulness; (2) alignment around that vision; (3) a persistent focus on systematic organizational design; and (4) the balance of reason and intuition.

At the heart of the metanoic organization is a deep sense of purposefulness and a vision of the future. The vision can be abstract, such as excellence, service, or creativity. In one company, people speak of the "diamond in the sky" to symbolize the excellence they strive for. Their vision is also to demonstrate that people are most creative within a context of freedom and responsibility. Alternatively, the vision can be concrete. At one computer manufacturer, the vision is to build a computer that never breaks down. In another, it is to build the world's largest and most powerful computer.

Although the substance of the vision obviously varies from firm to firm, the alignment of individuals around that vision is inherent in all metanoic organizations. Alignment is a condition in which people operate as part of an integrated whole and is exemplified in that profound level of teamwork that characterizes exceptional sports teams, theater ensembles, and symphony orchestras. When a high degree of alignment develops among members of a team committed to a shared vision, the individuals' sense of relationship and even their concept of self may shift. In *Eupsychian Management,* Abraham Maslow observed that in a highly aligned business team "the task was no longer something separate from the self, something . . . outside the person and different from him, but rather he identified with this task so strongly that you couldn't define his real self without including that task."

Alignment is crucial for two reasons. First, it bonds a group of disparate individuals into a common body, wherein each feels that his or her contribution matters. Secondly, highly aligned teams can produce results most people think impossible. Just as the 1980 U.S. Olympic hockey team shocked the world by winning the gold medal against the vastly more talented and experienced Russian and Finnish teams, when this synergy is sustained in business teams, overall performance improves dramatically.

The third characteristic of metanoic organizations is a consistent focus on the organization as a complex system. Though attention in most organizations is customarily focused on events and personalities, attention in metanoic organizations is continually redirected toward basic design. Understanding the organization as

an integrated system can reveal how policies that maximize performance in one area may be detrimental to the organization as a whole, or how policies that boost short-term results may erode profits in the long run. Each of the companies described below has implemented basic innovations in organizational design. Most are highly decentralized, in some instances breaking totally with traditional, hierarchical structure. All have developed incentive systems that encourage employee initiative, responsibility, and a sense of ownership. All continually evolve policies and structure as required to realize their vision.

Yet this quest to understand complex systems is tempered by the recognition that there is no "complete" model of the organization. Consequently, intuition must complement rational analysis and planning in order to understand the company's internal dynamics as well as its interactions with its environment. Vision and alignment are also intimately liked to intuition. A compelling and inspiring vision by its very nature transcends rationality. Likewise, alignment develops from the intuitive interconnectedness of people that allows individuals to act spontaneously in the best interests of the whole. Noted futurist Willis Harman has observed that at the heart of the world's spiritual traditions is the notion of a personal "life plan" that is known only by listening to our creative "inner voice." He writes, "Acting in accordance with this 'plan,' I can expect my actions to be in harmony with the ultimate well-being of all those around me." "The founding fathers who set up this nation were very clear on this. They specifically recommended the way in which this nation should govern itself, the way in which choices should be made, namely through this kind of collective listening."

Highly aligned groups perform complex tasks in ways that cannot be planned rationally. In *Second Wind: Memoirs of an Opinionated Man,* former basketball star Bill Russell describes this intuitive component of alignment in recounting games that were

> more than physical or even mental . . . and would be magical. . . . It was almost as if we were playing in slow motion. During these spells I could almost sense how the next play would develop and where the next shot would be taken. . . . My premonitions would be consistently correct, and I always felt then that I not only knew all the Celtics by heart, but also all the opposing players, and that they all knew me.

Case Studies

The metanoic organization represents an ideal toward which many companies appear to be evolving. The four companies below have been selected because they have advanced further than most toward this ideal. They exemplify how the general principles described above can be translated into specific changes in design and policy and the importance of such changes to the individual and to the organization.

Kollmorgen Corporation

Kollmorgen is a diversified manufacturing company headquartered in Stamford, Connecticut. It markets printed circuit boards, periscopes, electro-optical equipment, specialty-purpose electric motors, and related products. Sales in 1981 were $230 million, having doubled every 3 1/2 years for the past ten. Comprised of 13 virtually autonomous divisions, the company embraces a small-is-beautiful philosophy through decentralization. Each president reports to a division board of five or six other division presidents and corporate officers, replicating the relationship between a corporate chief executive and a board of directors. Important decisions, such as capital expansion, R&D expenditures, and the hiring and promotion of senior management, remain at the division level. Divisions are kept small (typically less than $50 million in sales and 500 employees) so that each

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Commentary
by Lotte Bailyn

Reading this 1982 article by the young Peter Senge and Charles Kiefer, the then-president of Innovation Associates, I felt suspended in time between *The Limits to Growth* and *The Fifth Discipline*. Here is all the concern about sustainability and what industry is doing to the environment, the key role of vision and purposefulness, and the importance of aligning individuals around them. The organizations they envision as encompassing the necessary characteristics they call *metanoic,* indicating a fundamental shift of mind, an entire new set of assumptions about the nature of individuals, organizations, and industrial growth. Their key characteristics build on Jay Forrester's system thinking, on McGregor and Maslow, and on a certain amount of intuition and spirituality.

The basic message is that given the right assumptions and understanding correctly the embeddedness within a system, a corporation's business growth and sustainability are not incompatible. Thinking systemically and, in the long range, decentralizing control, aligning to a vision, and empowering the individual are the keys to the metanoic organization. Further, these organizations, which apply the principles to their own design, are the hope for a sustainable society. In 1982, the authors were optimistic that the number of such organizations would increase and quoted one manager who said, "Our way of operating is just so far superior...others will have a hard time competing."

Herein lies the challenge to the researcher. Despite the compelling logic of the argument, we are no nearer now to a spread of these principles than we were then. A few organizations still fit the bill (though not always the same ones), but not many more—perhaps even fewer after reengineering, downsizing, mergers and acquisitions, and a

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general shift of the "employment contract" away from the common good. We continue to be aware of the danger of thinking in terms of either-or dichotomies: cost versus quality, profit versus protecting the environment, shareholders versus employees.

Yet, our behavior continues to reflect this either-or thinking. Local successes with changing such work practices (e.g., establishing a learning organization, designing work so that both business goals and employees' personal needs can be met) tend not to be sustained. Why? What stands in the way? How can we explain the resistance of organizations to follow a logic that seems so self-evident? The argument continues to be made in ever more compelling ways and with better and more complex examples, but the results stay stubbornly constant. We need to understand and explain this phenomenon. The sustainability of our society may depend on it.

employee can feel part of a family where his or her contribution matters. When divisions grow past this point, they generally split. Although there are about 4,500 employees in Kollmorgen, the corporate staff numbers only 25.

This organizational design is intended to expose all employees to the incentives and pressures of a free market. All employees share in their divisions' profits. Not only are the divisions run as free-standing businesses; product teams within divisions function highly autonomously. They may share equipment and overhead support with other teams, but they typically set their own prices, determine their own sales goals, and manage their own production schedules. Incentives within product teams are great, for most new divisions grow out of successful ones.

Organizational innovation has recently extended to corporate management. A "partners group" of the division presidents and senior corporate officers has been formed to bring freedom and equality into corporate policymaking. Decisions are by consensus, each partner having veto power over any major issue. In this atmosphere, absolute honesty and trust are imperative.

Cray Research

Unlike Kollmorgen, Cray Research manufactures several versions of a single product: the Cray 1, one of the world's largest computers. It is used for such tasks as weather forecasting and simulation of nuclear power generation, that require very large data-base and computational capacity. Sales in 1981 were $100 million, with growth in the 50%–100% range over the past five years. The company currently employs about 1,100 workers, mostly in the Minneapolis–St. Paul area, where it was founded in 1972.

Although a divisional structure like Kollmorgen's would be inappropriate to Cray's limited range of products, Cray embraces the same objectives of freedom, honesty, and responsibility. Product-development and marketing teams are small and independent, often located in separate facilities. As Chairman and Chief Executive Officer John Rollwagen explains, "We have always found that people are most productive in small teams with tight budgets, time deadlines, and the freedom to solve their own problems."

One of the things that distinguishes Cray is a pervasive spirit of people collectively engaged in a significant and daring undertaking. The technical and managerial challenge of building the world's most powerful computers seems to be shared throughout the organization. Rollwagen sees the ability to pursue "audacious tasks" as central to Cray. Moreover, he believes that they can be easier for an organization to achieve than more mundane goals: "Such a vision creates an environment that takes people beyond day-to-day problems. It creates enormous excitement. While this seems very risky, it's not really, because people are focused on a single purpose, and they know that there's no backup." He views this focus on a single vision as the key to Cray's management style: "If we lost track of our overriding purpose, all the other things we do would not be enough to guarantee our success."

Dayton-Hudson Corporation

Dayton-Hudson is a large retail operation headquartered in Minneapolis. Created in 1969 by the merger of two large department store chains, the company currently has approximately $5 billion in sales and about 88,000 employees in several autonomous divisions. The whole corporate staff numbers 250, however, a ratio of only one corporate person to about 400 employees.

A corporation's normal priority is to make money for shareholders. A distinctive feature of Dayton-Hudson, however, is its commitment to four constituencies: its customers, its employees, its shareholders, and its community—in that order. It is precisely this commitment to customers and employees that allows them, they believe, to server their stockholders. The company envisions itself as

the "purchasing agent for its customers." Its commitment to its employees is most evident in a strong emphasis on decentralized authority and decision making by consensus, as illustrated by the unwritten rule that all four principal corporate officers must agree on key corporate policy questions. A level of employee participations that is unique in the retailing industry is found in several divisions—for example, Mervyn's, a department store chain on the West Coast that has grown at over 50% for the past five years through this philosophy.

Dayton-Hudson is also distinguished in its social commitment. The company was one of the founders of the Minnesota 5% Club, which now includes a large number of corporations that give at least 5% of their pretax earnings to local social programs. The corporation views this giving as an important business investment, since its long-term profitability is intrinsically linked to the economic and social well-being of the communities in which it operates.

Analog Devices Incorporated

Analog Devices is a Norwood, Massachusetts, manufacturer of analog–digital converters and related devices for computerized measurement and control systems. The company has grown at 35% a year for the past five years (1981 sales of about $200 million) thanks in large part to a clear corporate philosophy that values the contribution of each individual. ADI's value statement could have been taken from any of the organizations we have studied:

1. We believe people are honest and trustworthy, and that they want to be treated with dignity and respect.
2. They want to achieve their full potential, and they'll work hard to do so.
3. They want to understand the purpose of their work and the goals of the organizations they serve.
4. They want a strong hand in determining what to do and how to do it.
5. They want to be accountable for results and to be recognized and rewarded for their achievements.

This commitment to the individual is again maintained through decentralization and distributed decision making. Chairman and President Ray Stata works to erode the mentality of hierarchy. The corporation explicitly places its first commitment to employees (followed by customers, then stockholders). Workers are regularly reminded, as Stata puts it, that "Human judgment is above procedure and on an equal footing with policy at Analog." Stata seeks "to break the procedural syndrome, whereby people seek to impose themselves on others through establishment of rules."

Respect for the individual is independent of his or her position in the organization. People at Analog seem determined to create an environment where power and influence derive from ability and commitment, not position. "We are not trying to eliminate all hierarchy," Stata says, "but to undercut the value system that is linked to the hierarchy. The greatest limitation in traditional organizations is that people further down the hierarchy somehow consider themselves lesser beings than those above them."

Others

Many other companies are developing along the same lines. Tandem Computer is a young, rapidly growing company (1981 sales of $200 million) with a vision of producing computers that offer continuous, nonstop service. It illustrates another characteristic of the metanoic organization: a marked deemphasis of formal organizational structures and management systems. At Tandem, the structure within working groups is fluid. People avoid memoranda and formal procedures whenever possible, so communication is generally immediate and oral. As Jim Treybig, Tandem's president, says, "Most companies are overmanaged. Most people need less management than you think." Steak and Ale. a highly success-

ful division of Pillsbury of over 300 restaurants, shows that freedom and individual responsibility can thrive in the restaurant business as well as in high-technology manufacturing. By establishing company norms of honesty, integrity, and open communication across all levels, Steak and Ale creates an atmosphere where employees consider themselves directly responsible for customer satisfaction and where most organizational change comes from the ground up.

Basic Assumptions

More and more, organizational specialists are examining "corporate culture" to determine what distinguishes successful corporations. Edgar Schein, well-known organizational theorist at the Massachusetts Institute of Technology (MIT), suggests that corporate culture can be considered on at least three distinct levels: artifacts (language, rules and procedures, organizational structure), values (explicit goals and principles for their pursuit), and basic assumptions. He emphasizes that basic assumptions, however difficult they may be to observe, represent the deepest level of culture and must be examined to understand how an organization affects its members. Such examination is particularly important for understanding how metanoic organizations might foster assumptions consistent with a sustainable society.

People Are Good, Honest, and Trustworthy

A central theme in every metanoic organization is that people are basically honest and trustworthy and that each wants to contribute to the organization. It is assumed that failure to behave accordingly signals the organization's failure to create an atmosphere conducive to such behavior. Kollmorgen's 1979 Annual Report expresses

> an unspoken conviction that man is basically good, that each individual is the basic measure of worth, and that each, by pursuing his own good, will achieve the greatest good for the greatest number.

People Are Purposeful

That people are basically good and want to contribute is well known as the "theory Y" view of management, to which the metanoic viewpoint adds a still more spiritual, visionary dimension. Rollwagen of Cray says it is important to "share the spiritual benefits of our success with all people in the organization." State of ADI sees alignment of personal and organizational purpose as a prerequisite for productivity. In his words, "I cannot commit a large part of myself without a 'rationalism'—that is, seeing the relationship between what I care deeply about and what the organization stands for." He believes that an organization's vision must reach from concrete business plans to a sense of cosmic purpose aligned with people's deepest values.

These views reflect a deep belief that personal satisfaction lies not in material rewards alone but in the opportunity to pursue a lofty objective. Metanoic organizations do not reject material rewards or the role of private enterprise in generating wealth. They do reject the "instrumental" view that people work *solely* for purchasing power, for they find no inherent conflict in the pursuit of a lofty vision and financial gain. Indeed, most argue that the two are complementary. This assumption is nowhere more clearly articulated than in Kollmorgen senior management's mission statement:

> to fullfill its responsibility to Kollmorgen shareholders and employees by creating and supporting an organization of strong and vital business divisions where a spirit of freedom, equality, mutual trust, respect, and even love prevails; and whose members strive together toward an exciting vision of economic, technical and social greatness.

Each Individual Has a Unique Contribution to Make

It is frequently assumed that only the extraordinary individual matters and the only power that matters is positional power. Those not formally in positions of power can at best connive to influence those who are. In metanoic organizations, positional power is secondary to what James MacGregor Burns and Warren Bennis call "transformational power," or the capacity to empower oneself and others to realize a common vision. It grows from the clarity of the individual's personal purpose and commitment to the organization's vision, not from position in the hierarchy.

John Rollwagen illustrates the importance of individual commitment by relating that within the Cray 1 computer is a cylindrical mat (about a foot thick, four feet in diameter, and five feet high) of some 70 miles of hand-woven copper wire. It takes three shifts of four people working three months to wire a Cray computer. In the past two years, many have been completed without a single mistake in over 100,000 connections! Not only is this a source of tremendous pride for the wiring teams, it has had a direct impact on the company as a whole. When the wiring is completed on time and is mistake-free, the computer passes inspection and is ready for delivery a month early. The result is not only a significant saving in cost but a direct gain in revenue, since a Cray 1 computer rents for close to $300,000 a month. Everyone in Cray benefits because all employees are on profit sharing.

Complex Problems Require Local Solutions

Complex "system" problems have long been held to require large, institutional solutions. This assumption has dominated our approach to public issues, resulting in an ever-increasing government involvement in fighting urban decay, environmental stress, and economic stagnation. Analogously, inside our organizations we assume that major problems, such as falling productivity or market share, must be solved from on top.

By contrast, metanoic organizations show that small institutions can typically be more responsive than large ones and that local decisions can be more effective than centralized ones. They have developed ways of making the smallest feasible unit an autonomous and effective decision-making body. As Stata explains:

> We try to adopt an organismic approach to management control. We continually emphasize local control for local problems, because it's simply not possible to figure it all out from the top.

> We try to decouple local control from hierarchical control. The management hierarchy needs to provide direction, awareness, and a sense of how the game is played, but it needs to respect the greater ability of small groups to solve their own problems.

Rollwagen adds that "We need to rely on individuals and small groups to identify and correct their mistakes. By the time a mistake gets to top management, it's often too late for effective correction." Decentralized, participatory decision making at Dayton-Hudson is exemplified by the weekly "ad meetings" at Mervyns, where merchandising managers from the entire company lay out a week's advertising. The open, free-flowing, and often confrontational meetings are a far cry from centralized advertising planning and so are the results: New ads are produced in three weeks, whereas competitors average 16.

A company's commitment to decentralization can be no stronger, however, than its faith in the wisdom and responsibility of the individual worker. Most managers do not trust people to function efficiently and effectively without elaborate rules and procedures. However, when we asked a division manager at Kollmorgen to see the procedure manual, he said simply, "We don't have one. We trust people." Another commented wryly, "It's the Bill of Rights,

Ten Commandments, the Sermon on the Mount, and the company bonus plan. Why rewrite something that already exists?"

The Concept of Leadership

In traditional organizations, including our federal government, the people at the top are seen as the people in control. By contrast, leaders in metanoic organizations are responsible for sustaining vision, catalyzing alignment, and evolving structure. They frequently conceive of themselves as teachers, but they do not control the system. Most do not even think it is possible to control an organization effectively from on top.

In the past those who led and those who are led have represented separate, if not antagonistic, classes. Leaders were assumed to possess unique understanding and power. This authoritarian attitude runs deep. As Stata observes, "Much of our traditional organizational thinking is derived from the Catholic Church and the Roman Army, institutions predicated on the notion that the person on top has information and influence not shared by others." To overcome such notions, leaders in metanoic organizations typically involve themselves heavily in teaching employees how the organization operates. As Jim Treybig at Tandem says, "Each person in the company must understand the essence of the business." "We want to run the company in a completely open way," says Swiggett of Kollmorgen, "so that there are no information monopolies—everybody knows everything. We don't want secrets. We don't want 'closed books.' We don't want people feeling special by virtue of the fact they have certain information."

However, efforts to break down the barriers separating different levels in the organization are not always welcome, particularly by those who come from authoritarian backgrounds, be they managers or not. Swiggett says, "Many people have been brought up with the idea that they cannot operate if they haven't got somebody telling them what to do. People are comfortable with authority; they've built their lives on it." Leaders in metanoic organizations recognize that they must work continually to overcome the authoritarian mentality, because it is inimical to the spirit of equality and responsibility they seek.

Me and You versus Me or You

Traditionally, there is in organizations an underlying assumption of separateness and competition. The spotlight is on the distinct, often conflicting needs, desires, and aspirations of individuals. People operate according to what Buckminster Fuller calls the "me-or-you" orientation, vying for scarce resources such as money and recognition, because they assume there is not enough to go around.

Metanoic organizations do not avoid competition; in fact, they seem to share a unique zest for it. They are energized by the risks and rewards of a challenging game. What is different is the context. Competition is transformed by the pursuit of a common vision, ground rules for how the game is played, and strong ethics of honesty and integrity. People insist on fair play and clear rules. They want clear winners and losers. When people have, in Swiggett's terms, "an honest game" to play in pursuit of a lofty vision, creativity and innovation are maximized. In such a context, competition becomes a strategy rather than an end in itself. Under these conditions, there may be interim winners and losers, but all benefit in the long run.

Robert Galbin, chairman of Motorola, describes how this "me-or-you" attitude extends into the organization's relation with its environment:

> Generally in an industrial society, we are simultaneously suppliers and customers, licensors and licensees. We can't do without each other. Each of us is better off that the other survives. We must and do compete vigorously. At times, one of

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us will be a little better than the other, providing the opportunity to win on that occasion. Next time the other may be the winner. Each competitor is important to the market and to each other, for we need multiple sources. The world requires diversity. The American society, to be dynamic and strong, needs the aggregate of all the ideas and all the efforts.

Implications for a Sustainable Society

We have a good understanding of the mechanisms that generate material growth in a free-market society. What sort of mechanisms might be in order for a sustainable, free society? Some might come from a redefinition of self-interest on the part of our private corporations to include the long-term vitality of the social systems within which the corporation operates. Many have argued that economic and social stability are necessary for business growth and that corporate involvement in guaranteeing such conditions is only logical. Yet, businesses often fail to grasp this logic.

The failure of most corporations to see the link between sustainability and business growth may be due to the fact that they themselves are trapped in the same "unsustainable" cultural beliefs and assumptions as society at large. Writing in *Coevolution Quarterly,* Donella Meadows, co-author of *The Limits to Growth,* says these assumptions include:

1. There is not enough to go around, so someone must lose if others are to win.
2. Physical and environmental limits are far away, so they can be ignored.
3. Each individual must look out for himself.
4. The future will be much like the past, only bigger and better.

The seed for a different type of relationship between the corporation and society is present in metanoic organizations. The assumptions in these organizations differ sharply from those listed above. There is an attitude that "either we all make it, or none of us does." It is assumed that everyone can win and that each individual has an important part to play in determining that outcome. In effect, there develops an awareness of and sense of responsibility for the larger social systems within which the individual operates.

Systemic Awareness and Responsibility

Awareness of a larger system arises naturally from alignment around a common vision. This is exemplified by the individual players in an orchestra, who know that their success is intimately tied to the success of the others. Most of the organizational innovations discussed above serve to clarify how individual actions influence collective performance. For example, Kollmorgen's divisions split whenever they grow to the point that the individual can "no longer get his hands around the business as a whole." The emphasis in all the companies on small, autonomous business units, be they product-development teams or retailing groups, underscores the message that each individual's actions matter. By eschewing formal rules and procedures, the organization encourages the individual to be responsible for results, not for following rules. Individual responsibility is reinforced by leaders who act as guides rather than as omnipotent and omniscient controllers of the destiny of the company and its employees.

Responsibility for larger social systems carries over to the corporation's interaction with its environment. The corporate responsibility programs of the metanoic organization tend to address the long-term well-being of the communities and regions within which they operate. Unlike the narrowly self-serving social activities of many companies aimed at protecting business interests, the metanoic organization sees its self-interest more broadly. The role played by Dayton-Hudson in revitalizing the depressed Whittier section of Minneapolis illustrates this. In 1977, Dayton-Hudson pledged a million dollars to help found the Whittier Alliance, a nonprofit community-development partnership

of local residents and businesses. Since its inception, the Alliance has assisted in over 650 home improvements, rehabilitated nearly a hundred multifamily units and converted them to cooperative home ownership, and upgraded streets, sidewalks, and public squares. Most of the work has been done by residents and local businesses. In 1981, Dayton-Hudson concluded its formal partnership according to plan and left the community with new skills, a credible community organization with visible accomplishments, and a renewed sense of self-sufficiency. The process is now being repeated in Pontiac, Michigan with plans for expanding into other communities.

Dayton-Hudson also encourages other corporations to become social activists. It co-founded the Minnesota 5% Club in 1976, the first such business group in the country, which has grown to include about 50 member organizations. The Club now plays a major role in fostering public-private cooperation on key Minnesota issues.

Similarly, Analog Devices helped found the Massachusetts High-Technology Council, an association of business leaders intent on promoting a healthful business climate in the commonwealth. One of the first issues confronted by the MHTC was high property taxes, a barrier to attracting and holding talented young workers. The MHTC fomented "Proposition 2 1/2," a referendum to limit and reduce property taxes, which the voters passed resoundingly in 1980. Tax reduction has been complemented by a campaign led by Ray Stata to boost business support of local universities and community colleges through the "two-percent solution," a pledge of 2% of corporate R&D expenditures to institutions of higher learning. To State, "such a pledge isn't a charitable contribution; it's an investment in the company's future."

System Principles

Systemic awareness and responsibility alone are insufficient, however, for the transition to a sustainable society. An advanced society in balance with its environment will also require a deeper understanding of the nature of complex systems. Meadows argues that the unsustainability of our present society arises from the lack of such understanding.

> The world is a complex, interconnected, finite, ecological-social-psychological-economic system. We treat it as if it were not, as if it were divisible, separable, simple, and infinite . . .

> No one wants or works to generate hunger, poverty, pollution, or the elimination of species. Very few people favor arms races or terrorism or alcoholism or inflation. Yet those results are consistently produced by the system-as-a-whole, despite many policies and much effort directed against them.

Meadows is describing the characteristic of complex systems often called *policy resistance*—the tendency of systems to resist attempts to change their behavior. Current economic issues such as stagflation, declining productivity, and weak capital investment persist despite repeated efforts to correct them. Efforts to solve such problems by addressing symptoms directly can actually make matters worse.

System theorists have been writing about policy-resistant complex systems for many years. Yet these insights have had a negligible impact on public policy making. Our present policy-making apparatus has so far failed to develop the orientation needed to handle long-term systemic problems. By and large, we continue to throw more money and people at symptoms without understanding underlying causes. Despite rhetoric to the contrary, we continue to assume that major problems must be solved from the top down. Given the time horizon allowed government officials to solve problems, this only reinforces the symptomatic approach.

Local environments are needed where systemic thinking can be nurtured and take root. Emerging metanoic organizations are providing just such environments. They represent a radical alternative to our accepted methods of

managing complex systems. They replace top-down control with decentralized control; they replace rules and regulations with alignment around a common vision to guarantee that people work together; and they demonstrate that leaders who catalyze alignment, responsibility, and intuition can be far more effective than traditional authority figures. These organizations are gradually assimilating system principles many have argued are necessary for a sustainable society. As they carry these principles into their dealings with competitors and government, they will become more widely understood.

In addition to policy resistance, one such system principle is the characteristic of "better before worse" behavior, where interventions improve conditions in the short-term only to lead to further deterioration in the long run. This principle has led metanoic organizations to oppose legislation that, although directly beneficial to it in the short run, may be detrimental in the long run. Swiggett and Rollwagen have been directors of the American Electronics Association (AEA). The AEA opposes legislation it views as inhibiting to free-market forces, such as the business tax cuts of the Reagan Administration that were felt to be forms of protectionism designed especially for large businesses in stagnating industries. The AEA felt that short-run benefits to member companies of accelerated capital depreciation or investment tax credits did not justify the likely long-term costs to the economy as a whole.

A third principle is the need for policies designed to work *with* the forces in a system rather than against them. Buckminster Fuller has often accused nonsystem thinkers of trying to "invent the future" rather than understanding the laws governing change as a guide to planning. Swiggett, in his 1982 speech to Kollmorgen's stockholders, criticized the Reagan economic program for its failure to recognize the long-term forces causing economic stagnation. Despite strong support for Reagan's intention to reduce government involvement in private affairs, Swiggett states that "[b]y implying we can make major changes in three or four years, President Reagan is running the risk of building high expectations and being washed out of office on a tide of disappointment." He goes on to assert that the economy is in the midst of a long-wave transition to a new mix of dominant technologies and industries and that policies designed to speed that transition are needed. Swiggett backs up his speeches with action; he and the AEA helped to initiate the 1978 Steiger amendment reducing capital gains taxes to spur investment in new business.

None of the companies see themselves as social missionaries, preaching morals to fellow businessmen; but they do see themselves as demonstrating that freedom, honesty, and responsibility make good business.

A fourth system principle understood by metanoic organizations is "shifting the burden to the intervenor"—the tendency of system-control mechanisms to atrophy in the presence of external assistance, creating dependency on still further intervention. This principle is central to understanding the reinforcing spiral of government assistance. The emphasis on autonomous business units in all the companies we have studied grows out of their understanding of the principle of "shifting the burden." Frequently, when product teams at Kollmorgen seek assistance, managers inquire whether the assistance represents a one-time need for help or is likely to lead to increasing dependency. They ask, "Are you shifting the burden?" Sharing and intergroup assistance is commonplace but only where it strengthens both parties.

Understanding how external assistance can foster dependency makes most metanoic organizations strong believers in free-market mechanisms. They vigorously oppose government assistance that may undermine the self-reliance of individuals and businesses. What distinguishes them from the host of other businesses that decry government intervention is their commitment to empower free-market forces to work for everyone's advantage. They recog-

nize that, in order for a free-market system to remain viable and responsive to society's changing needs, there must be an uncompromising commitment to honesty and integrity coupled with a strong sense of social responsibility. None of the companies see themselves as social missionaries, preaching morals to fellow businessmen; but they do see themselves as demonstrating that freedom, honesty, and responsibility make good business.

The Metanoic Viewpoint

Ultimately, the metanoic organization's greatest contribution may simply be its belief in the creative powers of highly aligned individuals. The vast majority of organizations simply do not work so well as people would like. Disillusionment, dissatisfaction, lack of alignment, and inefficient use of human resources are accepted as normal: "Things don't work, and there's nothing I can really do about it. I'm dissatisfied, but I'm stuck in a system too big, too unresponsive, and too complex to influence." This point of view is so pervasive it easily becomes an "absolute truth" and a self-fulfilling prophecy. It not only permeates most organizations and institutions but is the root cause of our sense of powerlessness in tackling the problem of creating a sustainable society.

The essence of the metanoic shift is the realization within each individual of the extraordinary power of a group committed to a common vision. In metanoic organizations people do not assume they are powerless. They believe deeply in the power of visioning, the power of the individual to determine his or her own destiny. They know that through responsible participation they can empower each other and ultimately their institutions and society, thereby creating a life that is meaningful and satisfying for everyone.

Can these organizations catalyze metanoia in society as a whole? Given that our country was founded on the very same belief that people can determine their destiny, it is entirely possible. Companies like Kollmorgen, Cray, Dayton-Hudson, and Analog Devices are direct expressions of this belief. They see themselves not as inventors of a new philosophy but as caretakers of an ancient vision, adapting it to the realities of the present.

The reality of the present, however, is that society operates by and large from a belief that the individual is at the mercy of huge, hopelessly complex, and unresponsive systems. Yet such beliefs can change, and when they do, everything else changes with them, even one's physical environment and perception of reality. As Willis Harman writes:

> What you believe determines what you perceive as reality.
> What you believe determines what you feel you can do about it.
> What you believe determines the exhilaration and joy you get out of life.
> Some beliefs are wholesome; others are definitely unwholesome. (Along the way most of us pick up a lot of unwholesome beliefs.)
> Beliefs can be changed.
> In a life that is constructed around an inadequate or erroneous set of basic beliefs, it will include a lot of problems and pain.
> If a society is guided by an inadequate or erroneous set of basic beliefs, it will tend to foster a great deal of human misery.
> At the level of society, too, beliefs can be changed.

One such change is the emerging belief, "we can collectively envision and create the society we want." Metanoic organizations provide a safe environment for this most basic belief to take root and develop.

It is too early to gauge the long-run effects of metanoic organizations. The number of companies operating in this manner will likely need to increase before their impact is felt on society. However, this seems the least uncertain element. As one Kollmorgen manager put it, "Our way of operating is just so far superior in organizational and human terms to the way most companies work, others will have a hard time competing. In a free society, this is the most potent force for change."