

## ORGANIZATIONS PAST AND ORGANIZATIONS FUTURE

WHAT I shall ask you to consider with me is an almost mystical belief that organizations, like individuals, are shaped by their times and shape their time too; that if we look back on the last seven decades, it is quite easy to see the ways in which our business organizations have reflected our societies, and that if we look ahead a decade or two we can make some reasonable guesses about the relationships in the future. But let's get a running start on the future by backing up into the past.

Consider the North American environment—circa 1900, an environment clearly ripe for the development of organizations designed for almost only one purpose, productivity. It was a relatively empty world that we lived in then. Government was supportive of vigorous entrepreneurial development. The market begged for material goods.

Our immigrant labor force was large, badly educated, but dedicated to finding a better world for its children. It was a period of relative immobility too—people didn't move from one city to another—and a colonialist period. The notion of the white man's burden, of an ignorant and somewhat irrational laboring class was widespread, and with it the notion that the planning, the thinking had to be done by the superior people for the good of the ignorant worker, even over the objections of that childlike worker.

No wonder, then, that into this ripe setting marched two strong forces, hand in hand.

First, came the classical organization theorists blowing the trumpets of organizational order and control.

The second great force was the primitive technocracy of F.W. Taylor and Henry Ford. They provided the techniques to back up the theory; techniques by which planning could be pressed into an intricate structure that would permit them to produce large quantities of highly crafted products. The craft was moved from the man to the system.

### F.W. TAYLOR AND PIG IRON HANDLERS

To get the flavor of the times, consider F.W. Taylor, the father of industrial engineering, describing the pig iron handler whose work he was

programming in 1910. He said, "This pig iron handler is not an extraordinary man, difficult to find; he is merely a man more or less of the type of the ox, heavy both mentally and physically."

In those early days, our faith in men was limited, but our faith in orderly structure was limitless. And our goal in those days was productivity.

But let us shift forward a few decades into the 30s and 40s. In the U.S. unions become strong, partially as a human reaction to Tayloristic rigidities. The New Deal moves in, with its new social orientation. At the same time, technology begins to explode and the explosion is magnified tremendously by World War II. Colonialism comes to an end. In the States, immigration slows to a trickle. Our people become much more mobile with improved communication and transportation. By the 50s the early image of the glorious entrepreneur has been largely redrawn into the caricature of a ruthless robber baron. He is watched more closely and reacted to more strongly.

Under such conditions, what shape shall business organizations take?

As is so often the case, several, not seemingly consistent things happen. Some firms change, but their first changes are ameliorative. They find band-aids to soothe the minor wounds inflicted by the changing world. They become concerned about morale and human relations. They begin to worry about how to keep people happy while they're doing miserable jobs. They devise new incentive plans and suggestion systems. But initially at least, they do not for a moment abandon the basic old Tayloristic structure. We continue to design the holes first, then we search for the pegs to fit them. The nascent participative management movement begins to take shape, and attacks Taylorism on Taylor's own playing fields. These new social science types try to show that participation and industrial democracy are better routes to the old nirvana of productivity than hard nosed Taylorism itself. But in so doing they actually help to patch up Taylorism, to make it more endurable, more human. For productivity remains the primary organizational deity, and the early rationale for participation is still the greater productivity that purportedly will follow from making employees think it's their idea.

#### QUANTITY TAKES A FALL

But the almighty goal of quantity production began to lose its singular position because of its own success. Once we had produced a large number of refrigerators, the issue began to shift from producing more to marketing them better, or to developing new products. These new questions led to a new emphasis on the management of management itself. In this newly emerging world of marketers and researchers and rapidly changing tasks,

the old Taylorism was just about useless. Time clocks in the research department just didn't make sense, nor did stop-watches in the President's office.

A different kind of managerial organization was needed. And gradually we backed into it. We became concerned with improving communication, with coordination, with setting up a climate for creativity. But we began to worry about these issues only within the ranks of management itself, leaving the production worker pretty much in the hands of old Mr. Taylor.

The new organizational form that emerged was thus a more complex form. It was divided into two layers. Now we began to separate, with the whole organization, not only classes of men, but also the structures within which the two classes were expected to work. Participative theory began to be applied widely, but almost exclusively to managers, while well structured Taylorism remained the rule for the organization of clerical and blue collar production workers.

Within management, the theory of participation became almost an analogue to the theory of the husbandry of plants. The agronomists didn't understand how plants grew, but they did the next best thing. They asked, "What are the conditions under which greatest growth occurs?" And the answers were that plants needed sunlight and moisture and appropriate soil chemistry. Participative management took about the same position with management during the 'fifties. We didn't understand the processes but we were learning more and more about the conditions under which they flowered. We learned that groups were useful organizational forms for fostering commitment and innovativeness. So we marched in with human relations training and brainstorming programs and sensitivity groups and attitude surveys and a whole variety of paraphernalia intended to fertilize effective organizational problem solving within the diverse ranks of management. Innovation became the new organizational goal superimposed upon the old production goal. Fertilizing human potential became the new means, superimposed on the old means of designing a tight and logical organization chart.

#### ENTER MID-50S EXPLOSION

But once again our world insists on changing. Enter the real technological explosion of the mid-fifties. Enter the computer and information technology and management science. Now for the first time we can seriously begin to examine the fertilizer theories of participative management. Now we can ask, "What is the true nature of human problem solving? of creativity? of innovation?" Part of the answer is clear; since by now we have

an excellent theory of information processing, perhaps we can replace the fertilizer theory with a more effective analysis theory. Indeed, perhaps we can even build artificial problem solving devices to simulate or substitute for human abilities.

It is not entirely accidental that the whole new analytic package has come to be called Management Science; for it is to a great extent conceptually the same as Taylor's old Scientific Management, spelled backwards, and riding on a computer instead of a stopwatch. It is Taylor's Scientific Management in that it separates the planning of decisions from decision-making itself, just as Taylor separated the planning of work from doing it.

Now what kind of organizational changes should we expect to accompany this brand new capacity to program the hitherto unprogrammable?

One major change is the introduction of a new quality of dynamism into the organizational world, a new rapid feedback cycle, that permits the organization to become much more a self-modifying system. Hence also a new temporary quality to organizational life. The temporariness of tasks is mirrored in the temporary nature of the information technology itself, which even now continues to grow at an exponential rate. And it is reflected in the attitudes of the new population of professionals that ride upon this technology—a highly mobile group, with the typical attitudes of professionals everywhere; professional loyalty, jah; organizational loyalty, nein.

But we all know there ain't no free lunch. So all this adds up to a couple of coexisting but opposing effects. One effect of Management Science is to push humanistic participative management even further upward into the still unprogrammed, open-ended areas at the top of the organizational hierarchy, while simultaneously tightening up and programming other parts of the organization, particularly sectors of lower middle management. The organization becomes more differentiated thereby, with even more different parts operating by different organizational rules. Now instead of one organization, we really have several different ones under the same roof. They range from open loosely controlled forms to the most micro-controlled structures imaginable. But for the people behind Management Science, for the whiz-kinds, the planners, and for top management itself, the new technology makes for a less programmed world, more ambiguous, more challenging, more judgmental, more open-ended; and I might add, more groupy, more committee-laden. As for the guy on the line, he continues to be told what to do, how to do it, and which finger to do it with

#### A NEW ARISTOCRACY

So the emergence of information technology builds toward a new kind of aristocracy, a technocracy which tends again to separate planners from

doers but at high levels. But it also builds toward flexibility. For its other effect is to let organizations learn more quickly about their own behavior. It sharply improved organizations' capacity to modify themselves. It makes complex organizations more complex, more like differentiated, self-corrective people.

By the 60s, the total large organization becomes not one structure but many structures; not an undifferentiated mass but a highly differentiated set of subsystems capable not of a single task but of a wide range of tasks, from routine to creative, from physical to emotional. And the new wonder (and the new challenge) becomes the articulation of the parts with one another, rather than the operation of any particular part. To the two old goals of productivity and innovation is now added a new sub-goal of integration and self-modification; and a new means—an emphasis on technical, professional management. Truly by the 'sixties, the large business organization has become a complex, self-regulating system. The central issues are not getting production out, nor even imaginative marketing. But rather problems like these: How do we get the sub-parts of this system of coordinate with one another so we can solve that huge problem out there? How do we reduce conflict and competition among these parts? How do we deal with our new prima donnas who are forever at each other's throats?

Another way of saying all this is to say that the new organizational problems are very much like political problems of whole societies, because the new large organization has become a complex set of interacting power groups with different backgrounds, different goals, different beliefs.

Now what about the 'seventies? My clouded crystal ball says that some big things are happening out there; and that indeed several of those things are the secondary harvest of the organizational past we have been discussing.

Values are changing for one thing. In the area I live in, just over the last couple of years there's been a rapid shift in attitudes toward industry. Two years ago if a company had wanted to build a new plant in town it would have been welcomed as a supplier of new jobs and a contributor to the local economy. Not so today; at least not for a significant portion of the population. A new plant now means new jobs all right, but new jobs mean new people, new people mean overcrowding, overcrowding means less open space and more destruction of the physical environment.

Perhaps such apparent value changes especially among the young, are transient. But a few permanent outcomes are likely even so. For example, the empty places in technical universities mean an irreversible change in our supply of technical manpower, at least for a generation or so.

ORGANIZATIONS OUTGROW MEN

Another real change is that we are undergoing an organizational population explosion. The number of organizations, in the U.S. at least, is climbing much more rapidly than the number of men. Non-profit organizations particularly seem to be growing at about ten times the rate of population.

For almost any given organization this growth will surely mean that its environment will be very different from what it was. The organization, whether it likes it or not, will find itself an urban apartment dweller rather than an isolated country boy. No longer can it wander across virgin terrain firing its shotgun at any thing that moves. That movement may be another organization. That terrain may already have been claimed by another organization. Indeed, there may be ninety-seven other institutions in the society which will react to any move that our organization chooses to make. The neighbours claim our organization is too noisy; the government claims that it's unlawful; the competition complain that it is unfair; youth claims that it is immoral; the local society for the protection of the green hills claims that it befouls the atmosphere; and the world union people claim that its activity is an insult to our Canadian neighbours. Privacy—organizational privacy—is gone. And the exploitive, devil-may-care, roughhouse, produce-it-and-peddle-it organization of the early days is going too.

Moreover the people inside organizations are members of the outside society, too. So their values are changing. Pressures for change are thus building from within. Employees, too, will seek a new quality of life.

Let's wrap the bundle up, and ask how organizations will reshape themselves in the decade ahead.

I think part of the answer is reasonably clear. Upon the Taylorized blue collar organization of the early 1900s, we superimposed the participative white collar organization of the 'forties and early 'fifties, and then upon that we began to superimpose the information processing organization of the late 'fifties and 'sixties. My guess is that the new layer will be the social-political organization of the 'seventies. The problems of the 'seventies will lie not so much within the organization, as between it and society. We shall have to look much more to the social and family life of organizations; at organizational marriage and divorce, at the children that organizations spawn. We shall begin to know organizations by the company they keep. The future, I think, will be social, political, inter-organizational.

Way back at the beginning, before Taylor, in the virgin world, organizations were nomadic. They were wandering, entrepreneurial bands of men. They were companies, in the original sense of that word, companies of men. With Taylorism and Henry Ford, that nomadic form gave way to a more static life style. Organizations became farmers, roughhouse farmers,

staking their claims, carving out their plots of land and exploiting their soil, routinely, but also autonomously, independently. Then the knowledge explosion provided a kind of rebirth of nomadism. Organizations no longer had to be anchored to their tasks and to their structures. The new highly flexible technology and the new high-powered technologists could provide a different sort of anchor. The organization could become mobile again, searching for tasks unlike anything it had undertaken before. It could become nomadic against not so much in a geographic sense, but creatively, searching for applications for its new and expensive technology.

#### NOMADS IN A CROWDED WORLD

But the nomadic organizations of the 'seventies will be nomads in a crowded and interdependent world. Now the environment is more differentiated, more populous. It provides more opportunities, but it also makes for harder going. In the new environment the traditional free moving, autonomous business organization must begin to give way. So must the tough thinking, rapid fire, decision-making, crisis eating company president. So too must the kindly morale builder. The appropriate new company president begins to look much more like, heaven help us, a politician who must juggle both the conflicting forces rising from within his organizations and those pressing in from outside groups. He needs wit, he needs sensitivity, and he needs what the black brothers call "soul".

I know that such an image of a company president may seem almost 180 degrees from the current beliefs of many businessmen. Many of them feel, for example, that current businessmen types, tough and decisive, should be running universities. Then the current student disturbances would cease forthwith. I feel that the converse is the more likely future. Not that businessmen will run universities like businesses, but that university-type men, the good ones that is, will be running businesses like universities.

For the university in an odd way presents an interesting parallel to the business organization of the future. Internally it is made up of many diverse groups over whom the administration can exert little direct authority. The faculty is a collection of *prima donnas* who may have some departmental loyalty, but mostly are loyal only to their professions. That students are a kind of transient body, vocally self-interested, but neither clearly consumers nor employees; not well organized and not always rational. And then there are the Board of Trustees and the community groups and all the other factions of society who feel it appropriate to exert pressure on the university; factions ranging from local industry that wants more engineers and business students, to the black community that wants black studies and more black students, to the alumni who want a better football team. In that

kind of setting the university president does not sit in his command post, punching out action programs and ordering groups about. On the contrary, he arbitrates, he confronts, he debates, he negotiates. And out of the negotiation process he tries to build not only viability and innovativeness, but adaptiveness.

Many company presidents of the 70s will have to do just such political and diplomatic juggling, inside the organization, and outside too.

All this projects an organizational world which is very different and yet in many ways very much the same. It is not a question of the new replacing the old, but of the new added on to the old. Certain tasks, for example, and certain kinds of industries are likely to remain highly routinized. The changes they will be experiencing are perhaps of only two kinds; they will be automating, and they will also be involved in a new blue collar participative revolution. Because economics and sociology will force them to make the life of the production worker a more challenging one.

#### MORE AUTONOMY, GREATER CONTROL

At the middle levels of line management, which had been going slowly participative in the 50s, the two quite polar trends should continue and remain somewhat in conflict. One is an accelerating trend toward participation; the other is a trend toward a higher degree of programing and control, emerging from Management Science. We are already seeing some of the oddities generated by those counterforces. I asked a large company president recently whether or not his company had been centralizing or decentralizing. He answered, "We're decentralizing, of course. It's easy to decentralize now, because the computer has given us much better central control over our people. Now we can let them do what they want to do, today; but we can slap them down tomorrow if our control reports show that they have failed." In one sense, greater autonomy; in another sense, much tighter control.

But when we move on upward in the organization, in amongst the planners, the staff people and the management itself, there I think we will see a desperate race for the better utilization of human resources. It is with our staff people and our higher levels of executives, with our technologists and professionals and researchers that we will be intensely concerned with the conditions that fertilize creativity and imagination.

If finally, we take the total package that we are facing—the shrinking world, the explosion of knowledge, the organizational population explosion, our massive social and economic tasks, emerging new value system—if we take all those together, one thing seems clear; rigid old authoritarian mechanisms will slowly fall to lower and lower positions, for they were



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designed for an orderly, slowly changing, almost static world. And organizational ambiguity, uncertainty, irregularity will become the normal state. We shall have to build new tools and new organizational structures to deal with that sort of continuously exploding world. One thing is certain, surely. Management will never be simple again.