appoint managers and other employees who believe in the social goals to be pursued and then to set up the mechanism for some kind of periodic personal review of their progress (requiring, in effect, the creation of some kind of independent board of directors).

In conclusion: a structure at the edge of a cliff

Our discussion has led to a "damned if you do, damned if you don't" conclusion. The pure (conglomerate) Divisionalized Form emerges as a configuration symbolically perched on the edge of the cliff, at the end of a long path. Ahead, it is one step away from *disintegration*—breaking up into separate organizations on the rocks below. Behind it is the way back to a more stable integration, perhaps a hybrid structure with Machine Bureaucracy at some intermediate spot along the path. And ever hovering above is the eagle, attracted by its position on the edge of the cliff and waiting for the chance to pull the Divisionalized Form up to more centralized social control, on another, perhaps more dangerous, cliff. The edge of the cliff is an uncomfortable place to be—maybe even a temporary one that must inevitably lead to disintegration on the rocks below, a trip to that cliff above, or a return to a safer resting place on the path behind.

In other words, we conclude that the Divisionalized Form has the **narrowest range of all the configurations. It has no real environment of its own; at best, it piggybacks on the Machine Bureaucracy in the simple, stable environment, and therefore always feels drawn back to that integrated structural form. The pure Divisionalized Form may prove inherently unstable, in a social context a legitimate tendency but not a legitimate structure. The economic advantages it offers over independent organizations reflect fundamental inefficiencies in capital markets and stockholder control systems that should themselves be corrected. And it creates fundamental social problems.** Perhaps there is justification only in its intermediate forms—by-product or related-product. It is, after all, the interdependencies among its activities that give an organization its justification, its reason to "organize." Perhaps the pure Divisionalized Form, with so few of these interdependencies, really is an "ideal type"—one to be approached but never reached.

THE ADHOCRACY

Prime Coordinating Mechanism:	Mutual adjustment
Key Part of Organization:	Support staff (in the Administrative Adhocracy; together with the operating core in the Operating Adhocracy)
Main Design Parameters:	Liaison devices, organic structure, selective decentralization, horizontal job specialization, training, functional and market grouping concurrently
Situational Factors:	Complex, dynamic, (sometimes disparate) environment; young (especially Operating Adhocracy); sophisticated and often automated technical system (in the Administrative Adhocracy); fashionable

None of the configurations so far discussed is capable of sophisticated innovation, the kind required of a space agency, an avant-garde film company, a factory manufacturing complex prototypes, an integrated petrochemicals company. The Simple Structure can certainly innovate, but only in relatively simple ways. Both the Machine and Professional Bureau-

cracies are performance, not problem-solving, structures. They are designed to perfect standard programs, not to invent new ones. And although the Divisionalized Form resolves the problem of strategic inflexibility in the Machine Bureaucracy, as noted in the last chapter, it, too, is not a true innovator. A focus on control by standardizing outputs does not encourage innovation.

Sophisticated innovation requires a fifth and very different configuration, one that is able to fuse experts drawn from different disciplines into smoothly functioning ad hoc project teams. To borrow the word Alvin Toffler popularized in *Future Shock*, these are the *Adhocracies* of our society. They appeared repeatedly in our review, in Lawrence and Lorsch's plastics companies, among Woodward's process producers, in NASA and the Boeing Company.

(Before beginning our discussion of the basic structure, we should note that Simple Structure, being almost nonstructure, generated a chapter that was short and simple. Machine and Professional Bureaucracy and the Divisionalized Form, being for the most part highly ordered structures, led to chapters that were highly ordered as well. Adhocracy, in contrast, is the most complex structure of the five, yet it is not highly ordered. Moreover, it is the newest of the five, the one about which we know the least. The reader is forewarned that the chapter cannot help reflecting the characteristics of the structure it describes.)

Description of the Basic Structure
The design parameters

In Adhocracy, we have a fifth distinct configuration: highly organic structure, with little formalization of behavior; high horizontal job specialization based on formal training; a tendency to group the specialists in functional units for housekeeping purposes but to deploy them in small, market-based project teams to do their work; a reliance on the liaison devices to encourage mutual adjustment, the key coordinating mechanism, within and between these teams; and selective decentralization to and within these teams, which are located at various places in the organization and involve various mixtures of line managers and staff and operating experts.

To innovate means to break away from established patterns. So the innovative organization cannot rely on any form of standardization for coordination. In other words, it must avoid all the trappings of bureaucratic structure, notably sharp divisions of labor, extensive unit differentiation, highly formalized behaviors, and an emphasis on planning and control systems. Above all, it must remain flexible. Thus Toffler (1970) notes that

Adhocracies "now change their internal shape with a frequency—and sometimes a rashness—that makes the head swim. . . . Vast organizational structures are taken apart, bolted together again in new forms, then rearranged again. Departments and divisions spring up overnight only to vanish in another, and yet another, reorganization" (p. 128). For example, the Manned Space Flight Center of NASA, America's most famous Adhocracy of the 1960s, changed its structure seventeen times in the first eight years of its existence (Litzinger et al., 1970:7). A search for organigrams to illustrate this chapter elicited the following response from one corporation well known for its Adhocracy structure: ". . . we would prefer not to supply an organization chart, since it would change too quickly to serve any useful purpose."

Of all the configurations, Adhocracy shows the least reverence for the classical principles of management, especially unity of command. The regulated system does not matter much either. In this configuration, information and decision processes flow flexibly and informally, wherever they must, to promote innovation. And that means overriding the chain of authority if need be.

The Simple Structure also retains an organic structure, and so is able to innovate as well. But that innovation is restricted to simple environments, ones that can be easily comprehended by a central leader. Innovation of the sophisticated variety takes place in environments not easily understood. So another kind of organic structure is required, one that relies on the application of sophisticated expertise. **The Adhocracy must hire and give power to experts**—professionals whose knowledge and **skills have been highly developed in training programs.** But unlike the Professional Bureaucracy, **the Adhocracy cannot rely on the standardized skills of these experts to achieve coordination,** because that would lead to standardization instead of innovation. Rather, it must treat existing knowledge and skills merely as bases on which to build new ones.

Moreover, the building of new knowledge and skills requires the combination of different bodies of existing ones. So rather than allowing the specialization of the expert or the differentiation of the functional unit to dominate its behavior, the Adhocracy must instead break through the boundaries of conventional specialization and differentiation. "An electrical specialist can spot a mechanical problem, perhaps in part because he does not know the conventional wisdom, and a bright engineer working in an apparently unrelated field can come up with a solution to a problem that has been frustrating the functional specialists" (Chandler and Sayles, 1971:202). Thus, whereas each professional of the Professional Bureaucracy can operate on his own, in the Adhocracy the professionals must amalgamate their efforts. "Traditional organizations can assume that they know all the problems and the methods. They therefore can assign expertise to a

single specialist or compartmentalized, functional group" (p. 203). In sharp contrast, **in Adhocracies the different specialists must join forces in multidisciplinary teams, each formed around a specific project of innovation.**

How does the organization cope with the problem of "uprooting the professional yet allowing him to maintain his ties to his field of expertise" (Chandler and Sayles, p. 15)? The solution is obvious: **The Adhocracy tends to use the functional and market bases for grouping concurrently, in a matrix structure.** The experts are grouped in functional units for housekeeping purposes—for hiring, professional communication, and the like—but then are deployed in project teams to carry out their basic work of innovation.

And how is coordination effected in and between these project teams? As noted earlier, standardization is precluded as a major coordinating mechanism. The efforts must be innovative, not standardized. So, too, is direct supervision, because of the complexity of the work. Coordination must be effected by those with the knowledge, the experts who actually do the project work. That leaves mutual adjustment, the prime coordinating mechanism of the Adhocracy. And, of course, **with the concentration on mutual adjustment in the Adhocracy comes an emphasis on the design parameter meant to encourage it—namely, the set of liaison devices.** Integrating managers and liaison positions are established to coordinate the efforts among and between the functional units and project teams; the teams themselves are established as task forces; and, as noted above, matrix structure is favored to achieve concurrent functional and market grouping. As Sayles notes, matrix structure "*reuses* old organizations instead of creating new ones for new goals and problems. It forces organizations to keep changing themselves because of conflicting goals, values, and priorities and builds instability into the very structure of the organization" (1976:15).

Thus, **managers abound in the Adhocracy—functional managers, integrating managers, project managers.** The last-named are particularly numerous, since the project teams must be small to encourage mutual adjustment among their members, and each team needs a designated leader, a "manager." This results in narrow "spans of control" for the Adhocracy, by conventional measures. But that measure has nothing to do with the control; it merely reflects the small size of the work units. Most of the managers do not "manage" in the usual sense—that is, give orders by direct supervision. Instead, they spend a good deal of their time acting in a liaison and negotiating capacity, coordinating the work laterally among the different teams and between them and the functional units. Many of these managers are, in fact, experts, too, who take their place alongside the others on the project teams.

With its reliance on highly trained experts, the Adhocracy—like the Professional Bureaucracy—is decentralized. But not in the same way, be-

cause in the Adhocracy, the experts are distributed throughout the structure, notably in the support staff and managerial ranks as well as the operating core. So rather than a concentration of power in the operating core, there is a more even distribution of it in all the parts. **The decentralization of the Adhocracy is what we labeled *selective* in Chapter 5, in both the horizontal and vertical dimensions. Decision-making power is distributed among managers and nonmanagers at all the levels of the hierarchy, according to the nature of the different decisions to be made.** No one in the Adhocracy monopolizes the power to innovate.

To proceed with our discussion, and to elaborate on how the Adhocracy makes decisions, we must at this point divide it into two types— the Operating Adhocracy and the Administrative Adhocracy.

The operating adhocracy

The Operating Adhocracy innovates and solves problems directly on behalf of its clients. Its multidisciplinary teams of experts often work directly under contract, as in the think-tank consulting firm, creative advertising agency, or manufacturer of engineering prototypes. In some cases, however, there is no contract per se, as in the film-making agency or theater company.

In fact, **for every Operating Adhocracy, there is a corresponding Professional Bureaucracy, one that does similar work but with a narrower orientation.** Faced with a client problem, the Operating Adhocracy engages in creative effort to find a novel solution; the Professional Bureaucracy pigeonholes it into a known contingency to which it can apply a standard program. One engages in divergent thinking aimed at innovation; the other, in convergent thinking aimed at perfection. One management consulting firm treats each contract as a creative challenge; another interprets each as the need to divisionalize the client's structure or strengthen its planning system, or both. One theater company seeks out new avant-garde plays to perform; another perfects its performance of Shakespeare year after year. In effect, one is prepared to consider an infinite number of contingencies and solutions; the other restricts itself to a few. The missions are the same, but the outputs and the structures that produce them differ radically. Both decentralize power to their highly trained specialists. But because the Operating Adhocracy seeks to innovate, its specialists must interact informally by mutual adjustment in organically structured project teams; the Professional Bureaucracy, because it standardizes its services, structures itself as a bureaucracy in which each specialist can function on his own, his work automatically coordinated with the others by virtue of his standardized knowledge and skills.

A key feature of the Operating Adhocracy is that its administrative and operating work tend to blend into a single effort. That is, in ad hoc

project work, it is difficult to differentiate the planning and design of the work from its execution. Both require the same specialized skills, on a project-by-project basis. As a result, the Operating Adhocracy may not even bother to distinguish its middle levels from its operating core. Managers of the middle line and members of what in other organizations would be called the support staff—typically a highly trained and important group in the Operating Adhocracy—may take their place right alongside the operating specialists on the project teams. And even when distinctions are made, a close rapport must develop between the administrative and operating levels, sometimes to the point where they are able to interchange their roles freely.

Figure 12-1 shows the organigram of the National Film Board of Canada, a classic Operating Adhocracy (even though it does produce an
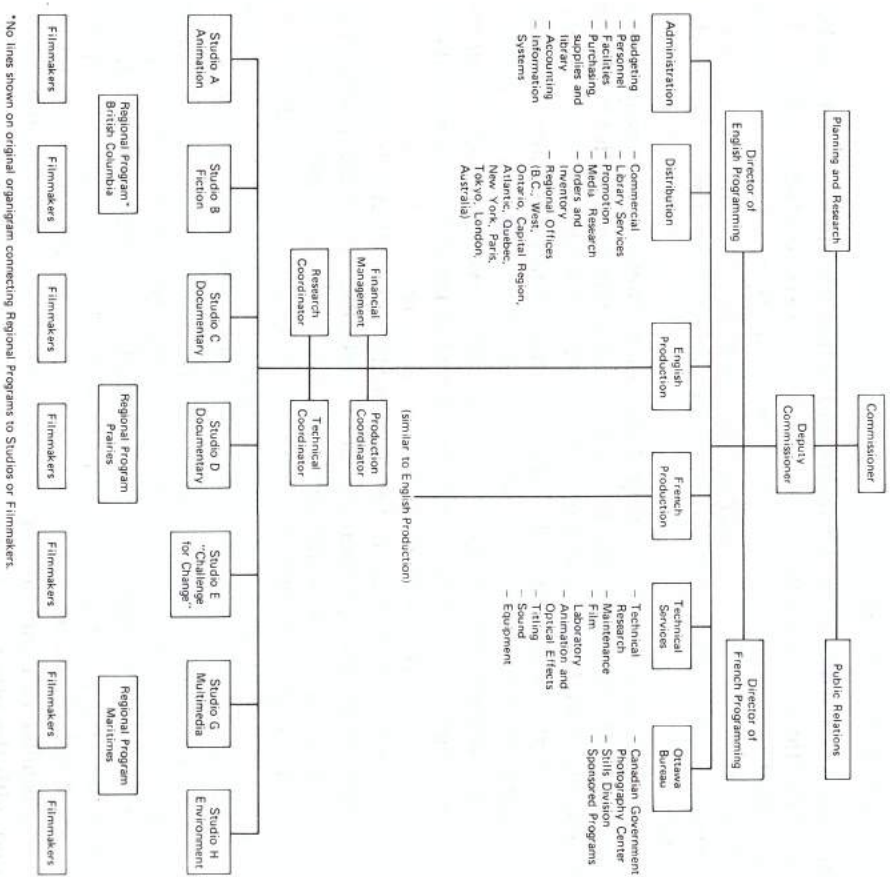
Figure 12-1 — The National Film Board of Canada: an Operating Adhocracy (circa 1975, used with permission)

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                          Commissioner
                               |
                        Deputy Commissioner
         _____|_____
        |                                                 |
Planning and Research                               Public Relations

   Director of                                        Director of
English Programming                              French Programming
   |                                                      |
   |-- Administration                                     |-- French Production
   |     - Budgeting                                      |     (similar to English Production)
   |     - Personnel                                      |
   |     - Facilities                                     |-- Technical Services
   |     - Purchasing, supplies and library               |     - Technical Research
   |     - Accounting                                     |     - Maintenance
   |     - Information Systems                            |     - Film
   |                                                      |     - Laboratory
   |-- Distribution                                       |     - Optical Effects
   |     - Commercial                                     |     - Animation and Titling
   |     - Library Services                               |     - Sound
   |     - Promotion                                      |     - Equipment
   |     - Media Research                                 |
   |     - Orders and Inventory                           |-- Ottawa Bureau
   |     - Regional Offices                               |     - Canadian Government
   |        (B.C., West, Ontario, Capital Region,         |       Photography Center
   |         Atlantic, Quebec, New York, Paris,           |     - Stills Division
   |         Tokyo, London, Australia)                    |     - Sponsored Programs
   |
   |-- English Production
         Financial Management
         Research Coordinator
         Production Coordinator
         Technical Coordinator

Studios:
 Studio A        Studio B     Studio C        Studio D        Studio E              Studio G       Studio H
 Animation       Fiction      Documentary     Documentary     "Challenge for Change" Multimedia     Environment
    |               |             |               |               |                     |              |
Filmmakers      Filmmakers   Filmmakers      Filmmakers      Filmmakers           Filmmakers      Filmmakers

Regional Program*        Regional Program        Regional Program
British Columbia         Prairies                Maritimes
    |
Filmmakers
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*No lines shown on original organigram connecting Regional Programs to Studios or Filmmakers.

organigram—one that changes frequently, it might be added). The board is an agency of the Canadian federal government and produces mostly short films, many of them documentaries. The organigram shows a large number of support units as well as liaison positions (for example, research, technical, and production coordinators). The operating core can also be seen to include loose, concurrent functional and market groupings (the latter by region as well as type of film produced).

The administrative adhocracy

The second major type of Adhocracy also functions with project teams, but toward a different end. Whereas the Operating Adhocracy undertakes projects to serve its clients, **the Administrative Adhocracy undertakes projects to serve itself. And in sharp contrast to the Operating Adhocracy, the Administrative Adhocracy makes a sharp distinction between its administrative component and operating core. The operating core is truncated—cut right off from the rest of the organization—so that the administrative component that remains can be structured as an Adhocracy.**

This truncation may take place in a number of ways. **First, when an organization has a special need to be innovative, perhaps because of intense product competition or a very dynamic technology, but its operating core must be machine bureaucratic, the operating core may be established as a separate organization.** As we saw in Chapter 9, the social tensions at the base of the Machine Bureaucracy overflow the operating core and permeate the administration. The whole organization becomes ridden with conflict and obsessed by control, too bureaucratic to innovate. By truncating the operating core—setting it up apart with its own administration that reports in at the strategic apex—the main administrative component of the organization can be structured organically for innovation.[1] **Second, the operating core may be done away with altogether—in effect, contracted out to other organizations.** This leaves the organization free to concentrate on development work. Thus, for the Apollo project, NASA conducted much of its own development work but contracted production out to independent manufacturing firms. **A third form of truncation arises when the operating core becomes automated.** This amounts to truncation because an automated operating core is able to run itself, largely free of the need for direct supervision or other direct control from the administrative component. The latter, because it need not give attention to routine operating matters, can structure itself as an Adhocracy, concerned with change and innovation, with projects to bring new operating facilities on line.

[1]The organization that truncates its bureaucratic operating core should not be confused with the one that gets up a venture team, a separate organic pocket for innovation. In that case, the innovative unit is cut off from the rest of the central administration, which remains bureaucratic.

Oil companies, because of the high automation of their production process, are in part at least drawn toward the Administrative Adhocracy configuration. Figure 12–2 shows the organigram for one oil company, reproduced exactly as presented by the company (except for modifications to mask its identity, made at the company's request). Note the domination of "Administration and Services," shown at the bottom of the chart; the operating functions, particularly "Production," are lost by comparison.
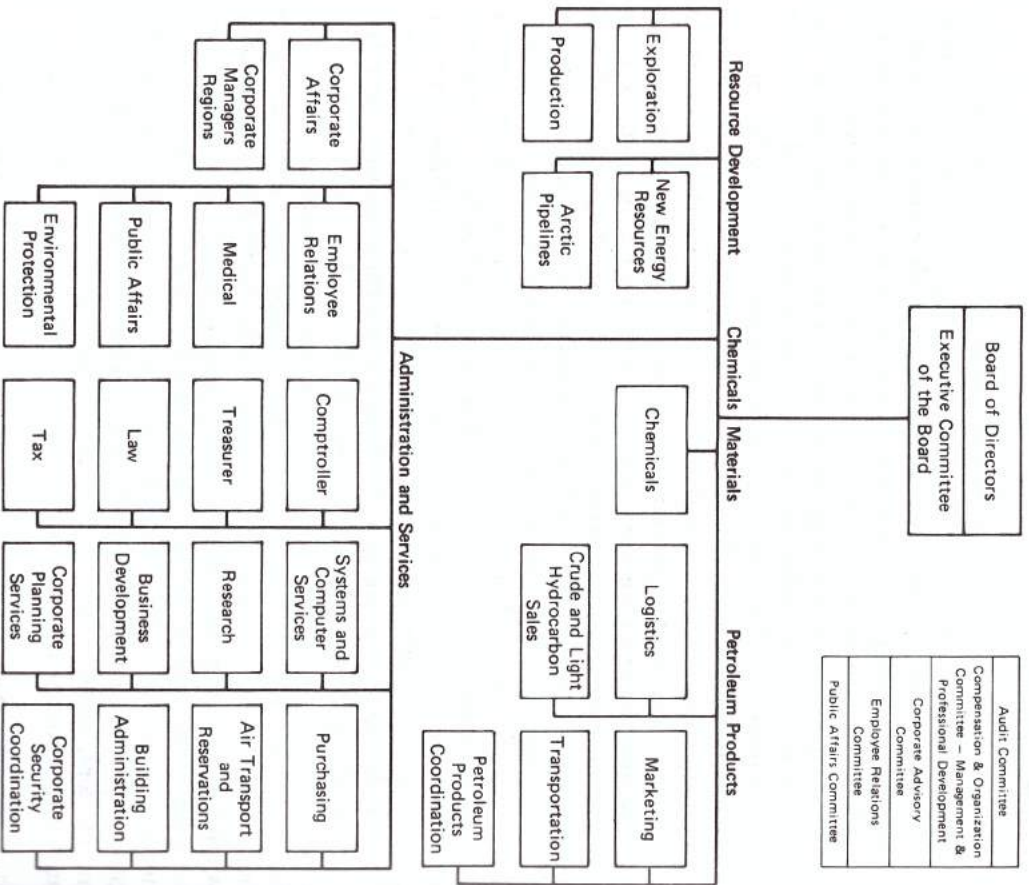
Figure 12-2. Organigram of an oil company: an Administrative Adhocracy (circa 1976)

Board of Directors / Executive Committee of the Board

Committees: Audit Committee · Compensation & Organization Committee – Management & Professional Development · Corporate Advisory Committee · Employee Relations Committee · Public Affairs Committee

Resource Development: Exploration · Production · New Energy Resources · Arctic Pipelines

Materials: Chemicals · Logistics

Petroleum Products: Crude and Light Hydrocarbon Sales · Marketing · Transportation · Petroleum Products Coordination

Administration and Services: Corporate Affairs · Corporate Managers Regions · Employee Relations · Comptroller · Medical · Treasurer · Public Affairs · Law · Business Development · Building Administration · Environmental Protection · Tax · Systems and Computer Services · Research · Air Transport and Reservations · Purchasing · Corporate Planning Services · Corporate Security Coordination

Note also the description of the strategic apex in terms of standing committees instead of individual executives.

The administrative component of the adhocracies

The important conclusion to be drawn from this discussion is that in both types of Adhocracy, the relation between the operating core and the administrative component is unlike that of any other configuration. In the Administrative Adhocracy, the operating core is truncated and becomes a relatively unimportant part of the organization; in the Operating Adhocracy, the two merge into a single entity. In both cases, there is little need for line managers to exercise close direct supervision over the operators. Rather, **the managers become functioning members of the project teams, with special responsibility to effect coordination between them.** But in this capacity, they act more as peers than as supervisors, their influence deriving from their expertise and interpersonal skill rather than from their formal position. And, of course, to the extent that direct supervision and formal authority diminish in importance, **the distinction between line and staff blurs.** It no longer makes sense to distinguish those who have the formal power to decide from those who have only the informal right to advise. Power over decision making flows to anyone in the Adhocracy with expertise, regardless of position.

The support staff plays a key role in the Adhocracy. In fact, it is the key part of the Administrative Adhocracy, for that is where this configuration houses most of the experts on which it is so dependent. The Operating Adhocracy also depends on experts, but since it retains its operating core, it houses many of them there as well as in its support staff. But in both cases, as noted above, much of the support staff is not sharply differentiated from other parts of the organization, not off to one side, to speak only when spoken to, as in the bureaucratic configurations. Rather, the support staff, together with the line managers (and the operators, in the case of the Operating Adhocracy), form part of the central pool of expert talent from which the project personnel are drawn. (There are, of course, exceptions. Some support units must always remain bureaucratic, and apart. Even NASA needs cafeterias.)

Because the Adhocracy does not rely on standardization for coordination, it has little need for a technostructure to develop systems for regulation. The Administrative Adhocracy does employ analysts concerned with adaptation to its external environment, such as marketing researchers and economic forecasters. As we shall see later, it does do some action planning, although of a rather general kind. But these analysts do not design systems to control other people so much as take their place alongside the line managers and the support staffers as members of the project teams.

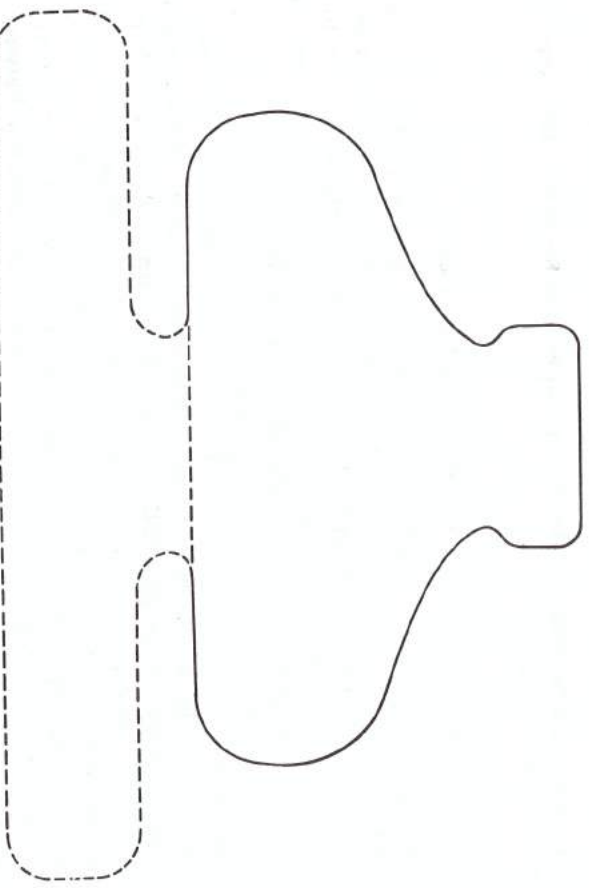To summarize, **the administrative component of the Adhocracy**

emerges as an organic mass of line managers and staff experts (with operators in the Operating Adhocracy), working together in ever-shifting relationships on ad hoc projects. Figure 12–3 shows the Adhocracy in terms of our logo, with its parts mingled together in one amorphous mass in the middle. In the Operating Adhocracy, this mass includes the middle line, support staff, technostructure, and operating core. The Administrative Adhocracy includes all of these except the operating core, which is kept apart in a truncated, bureaucratic structure, shown by the dotted section below the central mass. The reader will also note that the strategic apex of the figure is shown partly merged into the central mass as well. We shall see why in the discussion of strategy formation that follows.

Figure 12-3. *The Adhocracy*

Strategy formation in the adhocracy

In the Professional Bureaucracy, the strategy formulation process is controlled primarily by the professional associations outside the structure, secondarily by the professionals of the operating core themselves, and only after that by the administrators. In effect, the process is bottom-up, and outside-in. In all the other configurations so far discussed, the process is clearly top-down, controlled by the strategic apex (and in the Divisionalized Form, the strategic apexes of the divisions as well). In sharp contrast, control of the strategy formulation process in the Adhocracy is not clearly placed, at the strategic apex or elsewhere.

Moreover, the process is best thought of as strategy *formation*, because strategy in these structures is not so much formulated consciously by individuals as formed implicitly by the decisions they make, one at a time. The concept of the formulation–implementation dichotomy in strategy making—a pillar of the Machine Bureaucracy—loses its meaning in the Adhocracy. It is in the making of specific decisions within and about projects, what would normally be considered implementation, that strategies evolve—that is, are formed—in the Adhocracy. That is because when the central purpose of an organization is to innovate, the results of its efforts can never be predetermined. So it cannot specify a full strategy—a pattern or consistency in its stream of decisions—in advance, before it makes its decisions. Such patterns at best emerge after the fact, the results of specific decisions: ". . . goals continue to emerge as the task is pursued . . . a single engine fighter plane may evolve into a twin-engine attack bomber; a funding program for exceptional children may become a strategy for integration; a construction project may become a training program for the unskilled" (Goodman and Goodman, 1976:496). That is why action planning cannot be extensively relied upon in the Adhocracy. Any process that separates conception from action—planning from execution, formalization from implementation—impedes the flexibility of the organization to respond creatively to its dynamic environment.[2]

Consider the case of the Operating Adhocracy, a structure never quite sure what it will do next. That depends on what projects come along, which in turn depends partly on how well it does in its current projects. So its strategy never really stabilizes, but changes continuously as projects change. To put this another way, when the strategy does stabilize, the structure ceases to be Adhocracy. A stable strategy means that the organization has determined which markets it will serve, and how; in other words, which contingencies it will respond to and with which standard programs. It has, in effect, restructured itself as a bureaucracy, machine if it concentrates on a single simple program, professional if it remains open to a few, complex ones. Now if strategy evolves continuously according to the projects being done, it stands to reason that strategy formation is controlled by whoever decides what projects are done and how. And in the Operating Adhocracy, that includes line managers, staff specialists, and operators—in other words, potentially everyone in the organization.

[2]The same dynamic conditions apply in the Simple Structure, with the same result—namely, that planning cannot be relied upon and that strategy formulation cannot be separated from strategy implementation. But because it innovates in simpler ways, the Simple Structure resolves the issue by focusing control for both at the strategic apex. The chief executive formulates a general vision of direction—a vague strategy—in his head and then implements it, continually reformulating his vision as he receives feedback on his actions. He does not make his strategy explicit, for that would announce it to others and so reduce his flexibility to change it at will.

Take the case of the National Film Board. Among its most important strategies are those related to the content of the one hundred or so mostly short documentary-type films that it makes each year—some about the geography of Canada and the sociology of its peoples, others on pure experimental themes, and so on. Were the board structured as a Machine Bureaucracy, the word on what films to make would come down from on high. There would be one stable film strategy, formulated at the strategic apex and implemented lower down. (If the Board were structured as the Divisionalized Form, the word would come down from the head of each film division.) If it were structured as a Professional Bureaucracy, each filmmaker would have his own standard repertoire of basic film scenarios, which he would repeat year after year, and the organization would have a series of stable film-content strategies coming up from the operating core.

In fact, because it is structured as an Operating Adhocracy, the Board follows none of these procedures. About one-third of its films are sponsored by agencies of the Canadian government. As long as interested filmmakers can be found, these are accepted, and clients can be thought to impose the strategy. The other two-thirds are proposed by the Board's own employees and are funded from its own general budget. Each proposal is submitted to a standing committee, which at the time of this writing consists of four members elected by the filmmakers, two appointed by the Director of Distribution (marketing) Branch, and the Director of Programming. The Commissioner—the chief executive—must approve the committee's choices. Thus, operators, middle-line managers, support staffers, and managers at the strategic apex all get involved in the choices of what films to make. But the vast majority of the proposals are initiated by the filmmakers and the executive producers. Each has his own general preferences, whether those be for animated or experimental films, documentaries, or whatever. But a glance at the Board's catalog invalidates any conclusion about standardization. Certain general themes do develop from time to time. But these also change frequently, according to styles and successes and so on. So although there is no stable film-content strategy, a dynamic one can be identified, one in a continual state of adaptation.

The Operating Adhocracy's strategy evolves continuously as hundreds of these kinds of decisions are made each year in complicated ways. Each project leaves its imprint on the strategy. And to return to the basic point being made, so many people at so many levels are involved in these projects—both in deciding which ones to carry out and then in actually carrying them out—that we cannot point a finger at any one part of the organization and say that is where the strategy is formulated. Everyone who gets involved—and that means top- and middle-level managers, staff specialists, and operators, all combined in various task forces and standing committees—has a hand in influencing the strategy that gets formed. That is why we concluded earlier that the Operating Adhocracy is decentralized

selectively, in both the horizontal and vertical dimensions. The power for decision making is distributed widely, in the most complicated of ways, among managerial and nonmanagerial personnel, at all levels of the hierarchy.

Similar conclusions can be reached about the Administrative Adhocracy, although the strategy-making process is slightly neater there. That is because the Administrative Adhocracy tends to concentrate its attention on fewer projects, which involve more people in interdependent relationships. NASA's Apollo project involved most of its personnel for almost ten years; similarly, the bringing on line of a new processing plant can involve a good deal of the administrative staff of a petrochemical company for years. Moreover, since it carries out its projects only for itself, not for a range of outside clients, the Administrative Adhocracy tends to have a more concentrated product-market sphere of operations. Through the 1960s, for example, NASA focused on the single goal of landing an American on the moon before 1970.

Larger, more integrated projects and a more focused sphere of operations means that the efforts of the various specialists must be more carefully structured than in the Operating Adhocracy. As a result, **the Administrative Adhocracy structures itself as a system of work constellations, each located at the level of the hierarchy commensurate with the kinds of functional decisions it must make.** We saw a clear example of this in Chapter 5 (see Figure 5–2), with manufacturing, marketing, finance, and research constellations located at various levels of the hierarchy. Each constellation draws on line managers and staff specialists as necessary and distributes power to them according to the requirement for their expertise in the decisions that must be made. Hence, the Administrative Adhocracy is also decentralized selectively in the vertical and horizontal dimensions. And once again we cannot point to any one part of the organization as *the* place where strategy is formulated, although the existence of the work constellations does enable us to identify certain kinds of strategic decisions with certain parts of the organization.

The need to structure the efforts of the specialists also suggests a need for action planning in the Administrative Adhocracy. The problem with such planning, however, is that although the end or goal of the organization may be known, the means for reaching it are not. These must be worked out en route, by trial and error. So only a general kind of action planning can take place, one that sets out broad, flexible guidelines within which the work constellations can proceed to make their specific decisions. Again, therefore, it is only through the making of specific decisions—namely, those that determine which projects are undertaken and how these projects turn out—that strategies evolve. Even in the case of NASA, an organization thought to rely heavily on planning, that "turns out to be a dynamic, iterative process. This inevitably disperses authority, since a

small group of expert, high-level 'planners' cannot define strategy" (Chandler and Sayles, 1971:7).

The roles of the strategic apex

The top managers of the strategic apex of the Adhocracy may not spend much time formulating explicit strategies, but they must spend a good deal of their time in the battles that ensue over strategic choices, and in handling the many other disturbances that arise all over these fluid structures. The Adhocracy combines organic working arrangements instead of bureaucratic ones, with expert power instead of formal authority. Together these conditions breed aggressiveness and conflict. But the job of the top managers is not to bottle up that aggressiveness, as in the Machine Bureaucracy—that would be impossible in any event—but to channel it to productive ends. Thus, the top managers of the Adhocracy (as well as those in its middle line) must be masters of human relations, able to use persuasion, negotiation, coalition, reputation, rapport, or whatever to fuse the individualistic experts into smoothly functioning multidisciplinary teams.

The top managers must also devote a good deal of time to monitoring the projects. Innovative project work is notoriously difficult to control. No MIS can be relied upon to send up complete, unambiguous results. So there must be careful, personal monitoring of projects to ensure that they are completed according to specifications, on schedule, and at the estimates projected (or, more exactly, not excessively late with too great cost overruns).

But perhaps the most important single role of the top management of Adhocracy (especially Operating Adhocracy) is that of liaison with the external environment. The other configurations tend to focus their attention on clearly defined markets, and are more or less assured of a steady flow of work. Not so in the Operating Adhocracy, which lives from project to project and disappears when it can find no more. Since each project is different, the Operating Adhocracy can never be sure where the next one will come from. Moreover, in the Professional Bureaucracy, it is frequently the operators who bring in their own clients. This is less common in the Operating Adhocracy, where the operators work in teams. So that responsibility often falls on the top managers. In the Operating Adhocracy, therefore, the managers of the strategic apex must devote a great deal of their time to ensuring a steady and balanced stream of incoming projects. That means developing liaison contacts with potential customers and negotiating contracts with them.

Nowhere is this more clearly illustrated than in the consulting business, particularly where the approach is innovative and the structure therefore Adhocracy in nature. An executive once commented to this author that "every consulting firm is three months away from bankruptcy,"

In other words, three dry months could use up all the surplus funds, leaving none to pay the high professional salaries. And so when a consultant becomes a partner in one of these firms—in effect, moves into the strategic apex—he normally hangs up his calculator and becomes virtually a full-time salesperson. It is a distinguishing characteristic of many an Operating Adhocracy that the selling function literally takes place at the strategic apex.

Project work poses similar problems in the Administrative Adhocracy, with similar results. Reeser asked a group of managers in three aerospace companies, "What are some of the human problems of project management?" Among the common answers were two related to balancing the workload:

- The temporary nature of the organization often necessitates "make work" assignments for its displaced members after the organization has been disbanded, until productive jobs can be found for them. Sometimes the "make-work" assignments last so long that the individuals lose initiative.

- Members of the organization who are displaced because of the phasing out of the work upon which they are engaged may have to wait a long time before they get another assignment at as high a level of responsibility. (1969:463)

And so the top managers of the Administrative Adhocracy must also devote considerable attention to liaison and negotiation activities in order to ensure a steady stream of work. As Chandler and Sayles note in the case of NASA, dependent on government budgets and public support in general, "a good deal of the time of the key top managers was devoted to external relations with various units of the Executive Branch, with Congress, and with key public groups representing private business, universities, the scientific community, and various international interests" (1971:173).

Conditions of the Adhocracy

Basic environment

The conditions of the environment are the most important ones for this configuration; specifically, **the Adhocracy is clearly positioned in an environment that is both dynamic and complex.** According to Hypotheses 9 and 10, a dynamic environment calls for organic structure and a complex one that is both organic and relatively decentralized. In effect, innovative work, being unpredictable, is associated with a dynamic environment; and the fact that the innovation must be sophisticated means that it is difficult

to comprehend—in other words, associated with a complex environment. Thus, we find Adhocracies wherever the conditions of dynamism and complexity together prevail, in organizations ranging from guerrilla units to space agencies. There is no other way to fight a war in the jungle or put the first man on the moon.

As we have noted for all the configurations, organizations that prefer particular structures also try to "choose" environments appropriate to them. This is especially clear in the case of the Operating Adhocracy. As noted earlier, advertising agencies and consulting firms that prefer to structure themselves as Professional Bureaucracies seek out stable environments; those that prefer Adhocracy find environments that are dynamic, where the client needs are unpredictable.

Research-based organizations—whether laboratories that do nothing else, or corporations in high-technology industries that are heavily influenced by their research efforts—are drawn to the Adhocracy configuration because their work is by its very nature complex, unpredictable, and often competitive. Even hospitals and universities, described in Chapter 10 as closest to Professional Bureaucracy for their routine clinical and teaching work, are drawn to Adhocracy when they do truly innovative research. Their orientation to convergent, deductive thinking in their routine work precludes real innovation. So even though their professionals are often able to work alone when they apply their *standard* knowledge and skills, they must often join in organic multidisciplinary teams to create *new* knowledge and skills.

Disparate forces in the environment

Hypothesis 13 of Chapter 6 indicated that disparities in an organization's **environment encourage it to decentralize selectively to differentiated work constellations—in other words, to structure itself as an Administrative Adhocracy**. The organization must create different work constellations to deal with different aspects of its environment and then integrate all their efforts.

This seems to have happened recently in the case of a number of multinational firms. For years these firms have been predisposed to using the Divisionalized Form, grouping their major divisions either by region or by product line.[3] But recent changes in their environments have resulted in a near balance of the pressures to adopt each of these two bases of grouping, making the choice of one over the other an agonizing one. The choice of divisionalization by region denied the interdependencies that arose from marketing the same products in different places, resulting, for example, in

[3]Some used the multiple-divisionalized form, having both kinds of divisions, but with one over the other in the hierarchy.

the duplication of manufacturing faculties in each region. On the other hand, the choice of divisionalization by product line ignored the interdependences across product lines, requiring, for example, many different marketing units in the same region. Intent on maintaining the Division-alized Form, these firms traded off one interdependence against the other. Or else they found themselves acting schizophrenically, changing their basis of grouping back and forth in a kind of perpetual game of Ping-Pong.

With the emergence of matrix structure, however, these firms were presented with a logical solution to their dilemma. They could establish regional *and* product divisions at the same level of the hierarchy, in a permanent matrix structure—as long, of course, as they were prepared to dispense with the principle of unity of command. A product manager in a given region could report to both an all-product regional division manager and an all-region (worldwide) product division manager. A hybrid structure could emerge, which we can call the *divisionalized adhocracy*, with characteristics of both the configurations from which it derives its name. Its markets are diversified, like all organizations that use the Divisionalized Form, but parts of its environment are more complex and dynamic (in essence, disparate) than others. There is evidence that some multinational firms have moved in this direction, but no evidence yet of a general trend. Nevertheless, **those multinational firms with interdependencies among their different product lines, and facing increasing complexity as well as dynamism in their environment, will feel drawn toward the division-alized adhocracy hybrid**. For them at least, Adhocracy becomes a natural fourth stage of structural development, after Simple Structure, Machine Bureaucracy, and Divisionalized Form.

The divisionalized adhocracy may also have some relevance for non-commercial organizations that face similar conditions. In a thought-provoking study for UNICEF, the Scandinavian Institutes for Administrative Research (SIAR, 1975) propose such a structure for that United Nations agency. They describe the UNICEF structure at the time of their study as a regional Divisionalized Form but with a tendency toward too much head-quarters control. That leads to the vicious circle of one-way communication: The headquarters staff tries to control the regional divisions, which ignore their policies because they are out of touch with the local needs, which leads to further efforts by headquarters to control the divisions, until it comes to dominate the communication channels. In the opinion of the SIAR group, UNICEF required a different structure because "the need for learning and adaptation throughout the organization is so extremely high" (p. 17). Essentially, UNICEF faced the same dilemma as the multinational corporations we just discussed: the concurrent needs to respect regional knowledge and to achieve interregional coordination. That can be resolved in the divisionalized organization not by more standardization and direct supervision from headquarters, which involves a shift of the entire struc-

ture toward Machine Bureaucracy, but by more mutual adjustment among divisions, which involves a shift toward Adhocracy. Thus, SIAR proposes what amounts to a divisionalized adhocracy for UNICEF: Considerable power should be delegated to the regions, according to their expertise; the headquarters staff should advise rather than supervise; and an interactive or team structure should be used in the field. The result would be a more organic structure, built around flexible projects carried out by work constellations.

The SIAR report proposes a list of measures to effect the proposed structural change—a list that may, in fact, be practical for any division-alized organization wishing to move toward Adhocracy. Among the rec-ommendations: the elimination of one tier in the divisionalized hierarchy (such as the group vice-president level in the multiple-divisionalized cor-poration) in order to reduce the emphasis on direct supervision; the inte-gration of the planning and programming functions at headquarters, which would work with new knowledge networks; the use of more team-work at headquarters; a reduction in the use of performance control tech-niques; in their place, occasional "extended visits" by a headquarters team, with a broad rather than a functional orientation and led by the chief executive; the institution of matrix structure; the encouragement of profes-sionalism in attitude, type of work, career pattern, and training; the re-orientation of the job of regional director to professional senior rather than administrative supervisor; and the reorientation of internal communication flows to emphasize dialogue, problem solving, and learning rather than reporting, controlling, and explaining.

Frequent product change

A number of organizations are drawn toward Adhocracy because of the dynamic conditions that result from very frequent product change. The extreme case is the *unit producer*, the manufacturing firm that custom-makes each of its products to order, as in the case of the engineering company that produces prototypes. Because each customer order con-stitutes a new project, the organization is encouraged to structure itself as an Operating Adhocracy. Woodward describes such a structure in the unit-production firms she studied—organic and rather decentralized, but with the middle-level development engineers having considerable power.

Similar to the unit producer is the small high-technology firm, such as those surrounding Boston on Route 128. For the most part, these firms do sophisticated project work—design and sometimes manufacturing—under direct contract to the U.S. government or to the larger corporations in industries such as defense, aerospace, and atomic energy. Their work being complex and their environments dynamic, these firms are depen-dent on highly trained experts who work in interdisciplinary project teams,

But these firms are also small and owned by individual entrepreneurs who maintain personal control. (They are able to do so, of course, only because they are as highly trained as their employees.) So the structure emerges as a hybrid between Operating Adhocracy and Simple Structure, which we call the *entrepreneurial adhocracy*.

Another variant of the unit producer is the newspaper or magazine. From the editorial point of view, every product—that is, every issue—is different. Moreover, the environment is typically very dynamic and often rather complex, especially in the case of daily newspapers and news-magazines, which must report a vast world of fast-breaking news with very short deadlines. Moreover, the efforts of all kinds of reporters, pho-tographers, editors, and others must be integrated into a single product. So Adhocracy is called for in the editorial department. But from the point of view of the printing and distribution functions, there is great repetition—the need for two different structures is, of course, reconciled by the completes its work and then converts it into standardized format—typed truncation. The different functions are kept well separated, with standard functions. The need for two different structures is, of course, reconciled by what the content of the issue. So Machine Bureaucracy is called for in these environment is extremely stable—the tasks remain unchanged no matter thousands, sometimes millions of copies of the same issue. And their truncation. The different functions are kept well separated, with standard outputs serving as the one interface. The Adhocracy editorial department copy, page layouts, clipped photographs—which become the inputs to the bureaucratic production process.

Some manufacturers of consumer goods operate in markets so com-petitive that they must change their products almost continuously. Here again, dynamic conditions, when coupled with some complexity, drive the structure toward the Adhocracy form. An excellent example of what we shall call the *competitive adhocracy* is the pop recording company discussed earlier. Its dramatically short product life cycle and fluid supply of record-ing talent required extremely fast response based on a great deal of inside knowledge. As the student group that did the study noted, "The product life of a 45 rpm is three months. This is measured from the idea of releasing some song by an artist to the last sale of the single to stores. There is nothing quite so dead as yesterday's number one hit on the hit parade."[4] Other examples of competitive adhocracies are found in the cosmetics, pharmaceuticals, and plastics industries.

It should be noted that it is probably only product competition that leads to this kind of configuration. Competition based on price or market-ing is simpler to understand and deal with, and so often can be handled in the Simple Structure or Machine Bureaucracy. In contrast, product com-petition requires more serious innovation and more complex decision mak-

[4]From a paper submitted to the author in *Management Policy 276-661*, November 1972, by Alain Berranger and Philip Feldman.

ing, often based on sophisticated research and development activity. So Adhocracy becomes the favored configuration, and of the administrative type. Finance and pricing decisions remain in the more senior work constellations, and product design, development, and marketing decisions are delegated to constellations lower down in the hierarchy (as was the case with the pop recording company).

Youth as a condition of the adhocracy

A number of nonenvironmental conditions are also associated with Adhocracy. One is age—or more exactly, youth—since Adhocracy is not a very stable configuration. It is difficult to keep any structure in that state for long periods of time—to keep behaviors from formalizing and to ensure a steady flow of truly innovative, ad hoc projects. **All kinds of forces drive the Adhocracy to bureaucratize itself as it ages.** On the other side of the coin, according to Hypothesis 1, young organizations tend to be structured organically, since they are still finding their way and also since they are typically eager for innovative, ad hoc projects on which to test themselves. So we can conclude that **the Adhocracy form tends to be associated with youth, with early stages in the development of organizational structures.**

The Operating Adhocracy is particularly prone to a short life. For one thing, it faces a risky market, which can quickly destroy it. Unlike the Professional Bureaucracy or Machine Bureaucracy, with their standardized outputs, the Operating Adhocracy can never be sure where its next project will come from. A downturn in the economy or the loss of a major contract can close it down literally overnight.

But if some Operating Adhocracies have short lives because they fail, others have short lives because they succeed. Success—and aging—encourage a metamorphosis in the Operating Adhocracy, driving it to more stable conditions and more bureaucratic structure. Over time, the successful organization develops a reputation for what it does best. That encourages it to repeat certain projects, in effect to focus its attention on specific contingencies and programs. And this tends to suit its employees, who, growing older themselves, welcome more stability in their work. So the Operating Adhocracy is driven over time toward the Professional Bureaucracy to concentrate on the programs it does best, sometimes even toward the Machine Bureaucracy to exploit a single program or invention. The organization survives, but the configuration dies.

Administrative Adhocracies typically live longer. They, too, feel the pressures to bureaucratize as they age. This leads many to try to stop innovating, or to innovate in stereotyped ways, and thereby to revert to more bureaucratic structure, notably of the machine type. But unlike the Operating Adhocracy, the Administrative Adhocracy typically cannot change its structure while remaining in the same industry. In choosing that

industry, it chose a complex, dynamic environment. Stereotyped innovation will eventually destroy the organization. Newspapers and plastics and pharmaceuticals companies—at least those facing severe competition—may have no choice but to structure themselves as Adhocracies.

In recognition of the tendency for organizations to bureaucratize themselves as they age, a variant has emerged—"the organizational equivalent of paper dresses or throw-away tissues" (Toffler, 1970:133)—which might be called the *temporary adhocracy*. It draws together specialists from different organizations to carry out a project, and then it disbands. Temporary adhocracies are becoming common in a great many spheres of modern society: the production group that performs a single play, the election campaign committee that promotes a single candidate, the guerrilla group that overthrows a single government, the Olympic Committee that plans a single Games. A related variant is the *mammoth project adhocracy*, a giant temporary adhocracy that draws on thousands of experts for anywhere from a year to a decade to carry out a single task.

This last variant suggests that size is a less important condition than age for the Adhocracy. Administrative Adhocracies in particular can grow very large indeed. However, Operating Adhocracies tend to be small or middle-sized, constrained by the projects they do, by the number and size of the multidisciplinary teams they can organize, and by their desire to avoid the pressure to bureaucratize that comes from growing large.

Technical system as a condition of the adhocracy

Technical system is another important condition in certain cases of this configuration. Although Operating Adhocracies, like their sister Professional Bureaucracies, tend to have simple, nonregulating technical systems, the case for Administrative Adhocracies is frequently quite the opposite. **Many organizations use the Administrative Adhocracy because their technical systems are sophisticated and perhaps automated as well.**

As described in Hypothesis 7 of Chapter 6, when its technical system is sophisticated, the organization requires an elaborate, highly trained support staff to design or purchase, modify, and maintain it; the organization must give considerable power over its technical decisions to that support staff; and that staff, in turn, must use the liaison devices to coordinate its work. In other words, complex machinery requires specialists who have the knowledge, power, and flexible working arrangements to cope with it. The result is that support staffers emerge as powerful members of the organization, drawing power down from the strategic apex, up from the operating core, and over from the middle line. The organization is drawn to the Administrative Adhocracy configuration.

Automation of a sophisticated technical system evokes even stronger forces in the same direction. As we also saw in Chapter 6, the Machine

Bureaucracy that succeeds in automating its operating core undergoes a dramatic metamorphosis. The problem of motivating uninterested operators disappears, and with it goes the control mentality that permeates its structure; the distinction between line and staff blurs (machines being indifferent to who turns their knobs), which leads to another important reduction in conflict; the technostructure loses its influence, since control is built into the machinery itself by its designers rather than imposed on workers by the rules and standards of the analysts. Overall, the administrative structure becomes more decentralized and organic, emerging as the type we call the *automated adhocracy*.

Automation is common in the process industries, such as petrochemicals and cosmetics (another reason why firms in the latter industry would be drawn toward Adhocracy). That is presumably why Joan Woodward's description of the process producers fits Administrative Adhocracy to a T. But it should be noted that not all process firms use this configuration. Many are, in fact, far from fully automated, and therefore require large operating work forces that draw them toward Machine Bureaucracy. Steel companies, discussed in Chapter 9, are a case in point. Then there are the process producers that, although highly automated in production, exhibit strong Machine Bureaucracy as well as Administrative Adhocracy tendencies in some cases because they require large routine work forces for other operating functions (such as marketing in the oil company with many of its own retail outlets). Finally, there are the automated process producers with such simple environments and technical systems—for example, the small manufacturer of one line of hand creams—that the Simple Structure suffices instead of the Administrative Adhocracy.

Fashion as a condition of the adhocracy

We come now to the power factors. Power itself is not a major condition of the Adhocracy, except to the extent that the support staff of the Machine Bureaucracy is able to take control of certain technical decisions or the operators of the Professional Bureaucracy care to encourage innovation instead of standardization and thereby drive their structure toward Adhocracy. But **fashion most decidedly is a condition of Adhocracy.** Every characteristic of the Adhocracy is very much in vogue today: emphasis on expertise, organic structure, project teams and task forces, decentralization without a single concentration of power, matrix structure, sophisticated and automated technical systems, youth, and environments that are complex and dynamic. Ansoff's enthusiasm is typical of many of today's "future thinkers":

. . . in the next ten years the concepts of structure and capability are due for a change as revolutionary as the transition from static trenches to mobile warfare. A vast majority of technology used in design or organizations today is based on a Maginot line concept of "permanent" or at best "semi-perma-

nent" structures. If the reasoning in this paper is only half-correct, the trend is toward the concept of flexible task-responsive "mobile warfare" capabilities. (1974:83)

If Simple Structure and Machine Bureaucracy were yesterday's structures, and Professional Bureaucracy and the Divisionalized Form are today's, then Adhocracy is clearly tomorrow's. This is the structure for a population growing ever better educated and more specialized, yet under constant exhortation to adopt the "systems" approach—to view the world as an integrated whole instead of a collection of loosely coupled parts. It is the structure for environments that are becoming more complex and demanding of innovation, and for technical systems becoming more sophisticated and highly automated. It is the only structure now available to those who believe organizations must become at the same time more democratic yet less bureaucratic.

Yet despite our current infatuation with it, Adhocracy is not the structure for all organizations. Like all the other configurations, it too has its place. And that place, as the examples of this chapter make clear, seems to be in the new industries of our age—aerospace, electronics, think-tank consulting, research, advertising, filmmaking, petrochemicals—virtually all the industries that grew up since World War II. Stinchcombe's descendants, should they choose sometime during the twenty-first century to verify his conclusion of 1965 that organizational structure reflects the age of founding of the industry, will no doubt identify Adhocracy as the configuration of the last half of the twentieth century.

Some Issues Associated with Adhocracy

There has been little exploration of the issues associated with Adhocracy, the newest of the five configurations. Simple Structure is so old that its advantages and disadvantages are by now taken for granted. The issues associated with Machine Bureaucracy have been discussed at great length in the literature, especially those concerning alienation and conflict. There has also been quite a bit of discussion of the issues associated with Professional Bureaucracy, and, more recently, of the Divisionalized Form as well. But all these configurations have been around for some time. In contrast, Adhocracy is new. And every new structure, because it solves problems the old ones could not, attracts a dedicated following—one enamored with its advantages and blind to its problems. With this kind of support, time is required to bring its issues into focus—time to live with the structure and learn about its weaknesses as well as its strengths, especially in the case of a configuration as complex as Adhocracy.

Nevertheless, some of the issues associated with Adhocracy are apparent, and three in particular merit attention here: its ambiguities and the

reactions of people who must live with them, its inefficiencies, and its propensity to make inappropriate transitions to other configurations.

Human reactions to ambiguity

Many people, especially creative ones, dislike both structural rigidity and concentration of power. That leaves them only one configuration. Adhocracy is the one that is both organic and decentralized. Thus they find it a great place to work. In essence, **Adhocracy is the only configuration for those who believe in more democracy with less bureaucracy.**

But not every structure can be an Adhocracy. The organization's conditions must call for it. Forcing Adhocracy on, say, a simple, stable environment is as unnatural—and therefore as unpleasant for the participants—as forcing Machine Bureaucracy on a complex, dynamic one. Furthermore, not everyone shares the same vision of organizational utopia. As we saw in Chapter 9, there are those who prefer the life of Machine Bureaucracy, a life of stability and well-defined relationships. They, in fact, dislike the relationships of Adhocracy, viewing it as a nice place to visit but no place to spend a career. **Even dedicated members of the Adhocracies periodically exhibit the same low tolerance for its fluidity, confusion, and ambiguity.** "In these situations, all managers some of the time, and many managers all the time, yearn for more definition and structure" (Burns and Stalker, 1966:122–23).

Earlier we discussed two of the common responses Reeser (1969) received when he asked managers in three aerospace companies, "What are some of the human problems of project organization?" Of the other eight responses Reeser reports, six, in fact, relate to structural ambiguities: anxiety related to the eventual phaseout of the projects; confusion of members as to who their boss is, whom to impress to get promoted; low sense of member loyalty owing to frequent transfers between project organizations; a lack of clarity in job definitions, authority relationships, and lines of communication; random and unplanned personal development because of the short time under any one manager; and intense competition for resources, recognition, and rewards.

Reeser's last point raises another major problem of ambiguity, the politicization of the structure. **Coupling its ambiguities with its interdependencies, Adhocracy emerges as the most politicized of the five configurations.** No structure can be more Darwinian than the Adhocracy—more supportive of the fit, as long as they remain fit, and more destructive of the weak. Structures this fluid tend to be highly competitive and at times ruthless—breeding grounds for all kinds of political forces. The French have a graphic expression for this: *un panier de crabes*—a basket of crabs, all clawing at each other to get up, or out. Take, for example, matrix structure: as noted earlier, what it does is establish an adversary system, thereby institutionalizing organizational conflict.

There are conflicts that breed politics in the other configurations, too, as we have noted in each of the last four chapters. But these conflicts are always contained within well-defined ground rules. In the Simple Structure, the politics that do take place are directed at the chief executive. But his close, personal control precludes much of the political activity in the first place; those who do not like the structure simply get out. And in all the bureaucratic configurations, conflicts and politics are focused on well-defined issues—the power of line versus staff or professional versus nonprofessional, the resistance of workers to the control mentality, the biasing of information sent up to the central headquarters, the ambiguities of pigeonholing, and so on. In the Professional Bureaucracy, for example, highly trained experts with considerable power are naturally predisposed to do battle with each other, most often over territorial imperatives. But at least these battles are guided by professional norms and affiliations. And their incidence is sharply reduced by the fact that the professionals work largely on their own, often with their own clients. Not so in the Adhocracy, where specialists from different professions must work together on multidisciplinary teams, and where, owing to the organic nature of the structure, the political games that result are played with few rules. Adhocracy requires the specialist to subordinate his individual goals and the standards of his profession to the needs of the group, in spite of the fact that he, like his colleague in the Professional Bureaucracy, remains—potentially at least—a strong individualist.

In bureaucracies—especially of the machine type—management must spend a good deal of time trying to bottle up the conflict. But in the Adhocracy, that must not be done—even if it could be. Such efforts only stifle creativity. **Conflict and aggressiveness are necessary elements in the Adhocracy; management's job is to channel them toward productive ends.**

Problems of efficiency

No structure is better suited to solving complex, ill-structured problems than that of Adhocracy. None can match it for sophisticated innovation. Or, unfortunately, for the costs of that innovation. Adhocracy is simply not an efficient structure. Although it is ideally suited for the one-of-a-kind project, **the Adhocracy is not competent at doing ordinary things.** It is designed for the *extraordinary*. The bureaucracies are all mass producers; they gain efficiency through standardization. The Adhocracy is a custom producer, unable to standardize and so to be efficient.

The root of its inefficiency is the Adhocracy's high cost of communication. People talk a lot in these structures; that is how they combine their knowledge to develop new ideas. But that takes time, a great deal. Faced with the need to make a decision in the Machine Bureaucracy, some one up above gives an order and that is that. Not so in the Adhocracy, some- Everyone gets into the act. First are all the managers who must be con-

sulted—functional managers, project managers, liaison managers. Then there are all the specialists who believe their point of view should be represented in the decision. A meeting is called, probably to schedule another meeting, eventually to decide who should participate in the decision. Then those people settle down to the decision process. The problem is defined and redefined, ideas for its solution are generated and debated, alliances build and fall around different solutions, and eventually everyone settles down to hard bargaining about the favored one. Finally, a decision emerges—that in itself is an accomplishment—although it is typically late and will probably be modified later. All this is the cost of having to find a creative solution to a complex, ill-structured problem.

It should be noted, however, that the heavy costs incurred in reaching a decision are partially recuperated in its execution. Widespread participation in decision making ensures widespread support for the decisions made. So the execution stage can be smoother in the Adhocracy than in the Machine Bureaucracy, where resistance by the operators, not party to the decision, is often encountered.

A further source of inefficiency in the Adhocracy is the unbalanced workloads, as mentioned earlier. It is almost impossible to keep the personnel of a project structure—high-priced personnel, it should be noted—busy on a steady basis. In January, the specialists are playing bridge for want of work; in March, they are working overtime with no hope of completing the new project on time.

The dangers of inappropriate transition

Of course, one solution to the problems of ambiguity and inefficiency is to change the structure. Employees no longer able to tolerate the ambiguity and customers fed up with the inefficiency try to drive the structure to a more stable, bureaucratic form.

That is relatively easily done in the Operating Adhocracy, as noted earlier. The organization simply selects the standard programs it does best and goes into the business of doing them. It becomes a Professional Bureaucracy. Or else it uses its creative talent one last time to find a single market niche, and then turns itself into a Machine Bureaucracy to mass-produce in that niche.

But **the transition from Operating Adhocracy into bureaucracy, however easily effected, is not always appropriate.** The organization came into being to solve problems imaginatively, not to apply standards indiscriminately. In many spheres, society has more mass producers than it needs; what it lacks are true problem solvers. It has little need for the laboratory that comes up with a modification of an old design when a new one is called for, the consulting firm ready with a standard technique when the client has a unique problem, the medical or university researcher who sees every new challenge in terms of an old theory. The standard output of

bureaucracy will not do when the conditions call for the creativity of Adhocracy.

This seems to describe some of the problems of the television networks. Despite their need to be creative, the networks face one irresistible pressure to bureaucratize: the requirement that they produce on a routine basis, hour after hour, night after night, with never a break. One would think they would tend toward Professional Bureaucracy structures, but Jay's comments on his experiences as a producer for the BBC and other, comparable accounts in the literature suggest strong elements of Machine Bureaucracy. And the results are what one would expect of such structures: stereotyped programming, stale jokes supported by canned laughter, characters in serials that are interchangeable between channels, repetition of the old movies. Interestingly, the two bright spots on TV are the news and the specials, for reasons already suggested in our discussion of Adhocracy. The news department, like the newspaper, faces a truly dynamic environment. The networks can control and therefore stabilize the series, but never the news. Every day is different, and so, therefore, is every program. And the specials really are ad hoc—in this case, by the choice of the networks—and so lend themselves to the creative approach of Adhocracy. But elsewhere the pressures of the routine neutralize creativity, and the result is standardization.

Other organizations face these same dual pressures—to produce routinely yet also be creative. Universities and teaching hospitals must, for example, serve their regular clients yet also produce creative research. Universities sometimes set up research centers to differentiate the research function from teaching activities. These centers enable the professors with the greatest potential for research—often poor teachers—to do it without interruption. In the absence of such differentiation, the organization risks falling into a schizophrenic state, continually wavering between two kinds of structure, never clearly isolating either, to the detriment of both.

The Administrative Adhocracy runs into more serious difficulties when it succumbs to the pressures to bureaucratize. It exists to innovate for itself, in its own industry. The conditions of dynamism and complexity, requiring sophisticated innovation, typically cut across the entire industry. So unlike the Operating Adhocracy, the Administrative Adhocracy cannot often select new clients yet remain in the same industry. And so its conversion to Machine Bureaucracy—the natural transition for the Administrative Adhocracy tired of perpetual change—by destroying the organization's ability to innovate, can eventually destroy the organization itself.

To reiterate a central theme of our discussion throughout this book: **in general, there is no one best structure; in particular, there may be, as long as the design parameters are internally consistent and together with the situational factors form a coherent configuration.** We have delineated five such configurations in this last section of the book; their dimensions are summarized in Table 12–1.

TABLE 12–1. Dimensions of the Five Configurations*

	Simple Structure	Machine Bureaucracy	Professional Bureaucracy	Divisionalized Form	Adhocracy
Key coordinating mechanism	Direct supervision	Standardization of work	Standardization of skills	Standardization of outputs	Mutual adjustment
Key part of organization	Strategic apex	Technostructure	Operating core	Middle line	Support staff (with operating core in Op. Ad.)
Design parameters:					
Specialization of jobs	Little specialization	*Much horizontal and vertical specialization*	*Much horizontal specialization*	Some horizontal and vertical specialization (between divisions and HQ)	*Much horizontal specialization*
Training and indoctrination	Little training and indoctrination	Little training and indoctrination	*Much training and indoctrination*	Some training and indoctrination (of division managers)	Much training
Formalization of behavior, bureaucratic/organic	Little formalization, *organic*	*Much formalization, bureaucratic*	Little formalization, *bureaucratic*	Much formalization (within divisions), bureaucratic	Little formalization, *organic*
Grouping	Usually functional	*Usually functional*	Functional and market	*Market*	*Functional and market*
Unit size	Large	Large at bottom, small elsewhere	Large at bottom, small elsewhere	Large (at top)	*Small throughout*
Planning and control systems	Little planning and control	Action planning	Little planning and control	*Much performance control*	Limited action planning (esp. in Adm. Ad.)
Liaison devices	Few liaison devices	Few liaison devices	Liaison devices in administration	Few liaison devices	*Many liaison devices throughout*
Decentralization	*Centralization*	*Limited horizontal decentralization*	*Horizontal and vertical decentralization*	*Limited vertical decentralization*	*Selective decentralization*
Functioning:					
Strategic apex	All administrative work	Fine-tuning, coordination of functions, conflict resolution	External liaison, conflict resolution	Strategic portfolio, performance control	External liaison, conflict resolution, work balancing, project monitoring
Operating core	Informal work with little discretion	Routine, formalized work with little discretion	Skilled, standardized work with much individual autonomy	Tendency to formalize owing to divisionalization	Truncated (in Adm. Ad.) or merged with administration to do informal project work (in Op. Ad.)
Middle line	Insignificant	Elaborated and differentiated; conflict resolution, staff liaison, support of vertical flows	Controlled by professionals; much mutual adjustment	Formalization of division strategy, managing operations	Extensive but blurred with staff; involved in project work
Technostructure	None	Elaborated to formalize work	Little	Elaborated at HQ for performance control	Small and blurred within middle in project work
Support staff	Small	Often elaborated to reduce uncertainty	Elaborated to support professionals; Mach. Bur. structure	Split between HQ and divisions	Highly elaborated (esp. in Adm. Ad.) but blurred within middle in project work
Flow of authority	Significant from top	Significant throughout	Insignificant (except in support staff)	Significant throughout	Insignificant
Flow of regulated system	Insignificant	Significant throughout	Insignificant (except in support staff)	Significant throughout	Insignificant
Flow of informal communication	Significant	Discouraged	Significant in administration	Some between HQ and divisions	Significant throughout
Work constellations	None	Insignificant, esp. at lower levels	Some in administration	Insignificant	Significant throughout (esp. in Adm. Ad.)
Flow of decision making	Top-down	Top-down	Bottom-up	Differentiated between HQ and divisions	Mixed, all levels
Situational factors:					
Age and size	Typically young and small (first stage)	Typically old and large (second stage)	Varies	Typically old and very large (third stage)	Typically young (Op. Ad.)
Technical system	Simple, not regulating	Regulating but not automated, not sophisticated	Not regulating or sophisticated	Divisible, otherwise typically like Mach. Bur.	Very sophisticated, often automated (in Adm. Ad.); not regulating or sophisticated (in Op. Ad.)
Environment	Simple and dynamic; sometimes hostile	Simple and stable	Complex and stable	Relatively simple and stable; diversified markets (esp. products and services)	Complex and dynamic; sometimes disparate (in Adm. Ad.)
Power	Chief executive control; often owner-managed; not fashionable	Technocratic and sometimes external control; not fashionable	Professional operator control; fashionable	Middle-line control; fashionable (esp. in industry)	Expert control; very fashionable

*Italic type designates key design parameters.