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Cybernetics in City Hall

An understanding of the principles of cybernetics can guide fundamental improvements in urban government.

E. S. Savas

The science which is parent to much of modern technology is cybernetics—the science of communication and control in organized systems. The word itself, introduced and popularized by Norbert Wiener (*1*), is transliterated from the Greek word *Κυβερνήτης*. That same Greek word has also entered our language in a slightly different transliteration, and translation, as the word “governor.” Etymologically, therefore, there is an equivalence between a governor and a cyberneticist, between government and cybernetics.

This equivalence is worth exploring. What happens when a cyberneticist, perhaps naively, assumes that big-city government is “an organized system” and casts his practiced eye on it? What does he see, and what can he tell us about applying the principles of cybernetics to cities?

The cyberneticist brings to his task the view that an organized, adaptive system is a goal-seeking ensemble which can sense its relation to its objective and modify its behavior in order to approach the objective more closely. The simple feedback-control diagram of Fig. 1 is the basic tool of the cyberneticist,

and it suffices to illustrate the elements of such a system. The desired condition of the system is selected by some goal-setting process, entered into a comparator, and then tested against the actual condition, which is observed and reported by some process of information feedback. Any discrepancy between the desired and the observed conditions causes the actuator to act upon the system to reduce the discrepancy. The continuing, dynamic nature of this entire process results from the disturbances—that is, causative factors outside the system which upset the system and make it necessary to apply control action to counteract their effects.

The discerning cyberneticist can identify corresponding elements of this feedback control system in city government, even though the latter is far from being a simple system with a single goal. The goal-setting mechanism, which establishes objectives and priorities, is the mayor's decision-making process. A comparison of the desired condition with the observed state of the city results in action to reduce the disparity; municipal administration (that is, the bureaucratic processes of city government) constitutes this action element of the system—a provocative thought indeed! The system being acted upon is the city and its people. It is subject to

external upsets that may be classed as social, economic, political, and natural. The output, or observed condition of this living system, is the state of the city. Feedback concerning the condition is transmitted to the mayoral decision center by way of an information system.

What happens when a cyberneticist, impelled by his students and his conscience to seek relevance, examines New York City's government? How would he interpret recent developments there in terms of the five basic attributes and elements of this cybernetic loop: (i) the overall dynamic characteristics of the process, (ii) the information system, (iii) administration, (iv) goal-setting, and (v) disturbances?

Dynamics of Urban Government

The first disturbing realization is that the natural time constants of urban systems are unrelated to the term of elected office. Thus, it is impossible for an official to show visible accomplishments in 4 years on a problem which may require at least a full generation—25 years—to solve. If Moynihan's thesis (*2*) is correct, for instance, then it will be necessary for a black male infant to grow to maturity, with his father as breadwinner and resident head of the house, before his family realizes its potential and acquires a life-style which puts it in harmony with the community.

Similarly, if it takes a year to determine the state of the system (that is, identify a major problem in a way which suggests approaches to its solution), another year to define objectives, to plan, and to allocate resources to attack the problem (in the annual budgeting ritual), and a third year to construct, staff, and test the appropriate administrative structure for implementing the plan, this leaves precious little time,

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mostly the fourth (or election) year, to look for significant, tangible results. Awareness of these process dynamics may impel a political leader to settle for smaller goals, which are surer of attainment, or for highly visible acts which, initially, may be more symbolic than effective. Such acts can be further justified on the grounds that they will contribute to reelection, thereby making it possible to address the real problems systematically and fundamentally during the next term of office.

Forrester (3) has analyzed the feedback-control loops implicit in the everyday business activities of industrial firms, and has showed that their complex, time-varying interactions have profound consequences. Depending upon the amounts of time required to process orders, produce goods, bring the goods to market, and report sales, it is possible to generate wild instabilities and feast-or-famine conditions in the manufacturing plant, the warehouse, or the sales office. In other words, differing time constants for related processes can cause poor performance.

For a municipal analogy, take the embarrassing example of the housing administrator who approves an application to rehabilitate a decaying building, only to discover that the building has already been demolished by his agency. The time necessary to examine, evaluate, and approve a rehabilitation application exceeds the sum of the time required for the building to deteriorate past the point of no return, the time required to detect that deterioration (information feedback), and the administrative time required to make the decision and actually to effect demolition.

The large time constants and the incredibly involved multivariate nature of the city as a system require that we employ a very large, very sophisticated, very complicated governor—that is, a control device we call government. But, as any control engineer knows, it is difficult to keep a large, sophisticated controller tuned up and functioning well, for there are always component failures, gear slippages, time lags, loose connections, nonlinear effects, and other problems. In government, as in other large organizations, the analogous shortcomings are incompetent individuals in key posts, poor coordination, bureaucratic delays, bad communications, and conventional responses to unconventional situations.

The common cybernetic approach to

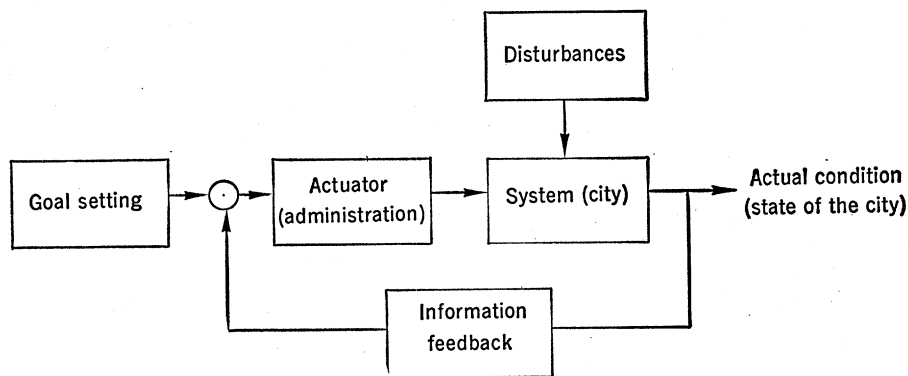


Fig. 1. A basic feedback-control diagram.

this kind of problem is to apply minor-loop control—that is, to divide the control function among several smaller, simpler controllers. In doing this, one recognizes that *complete* decoupling of variables cannot be accomplished and that, by relegating such variables to different controllers, one is sacrificing the optimum that *theoretically* could be attained by a more integrated, comprehensive “total approach.”

Decentralization is an example of minor-loop control. From the standpoint both of good government and of cybernetic theory, decentralized control of some government activities makes sense. Getting decision-making down into the community offers hope of getting more rapid response and more effective performance of the system. Thus, the concept of school decentralization, and of participatory democracy in general, is in accordance with cybernetic principles, although getting a new controller “on line” is always troublesome, as was demonstrated during the school turmoil in New York.

As mentioned above, minor-loop control results in some sacrifice. In the case of school decentralization, one might have to forego the economies of scale available in purchasing, in administration, and in handling special students. Furthermore, a decentralized school system might lead to such diversity in curriculum and student achievement that students transferring, or proceeding upon graduation, to another school would be poorly served; in other words, the close coupling among some of the variables cannot be totally disregarded.

The control engineer has a solution to this problem of coordinating independent minor-loop controllers: cascade control. A high-level controller establishes objectives for the subordinate controllers, but allows the latter to

achieve those objectives through local action. This is equivalent to having a central education authority set standards for curriculum and pupil reading achievement, for example, while leaving the details of implementation to local authorities.

In *Urban Dynamics*, Forrester (4) concludes that programs for job training, job creation, and low-cost housing have the perverse long-term effects of increasing the relative numbers of underemployed and accelerating the deterioration of housing. These outcomes, he theorizes, result from the complex feedback mechanisms which interrelate the many variables of the urban system. Forrester refers to this unexpected effect as the “counterintuitive behavior” which characterizes most complex systems; that is, the ultimate result of an action turns out to be quite the opposite of that which is intended and which intuitively appears obvious.

As an example of counterintuitive behavior, one has only to look at the elaborate, time-consuming, and costly bureaucratic system of checks and balances that are designed into municipal government to assure that the city gets fair value in its purchases. The procedures were constructed to protect against graft and corruption in contracting for supplies, equipment, and services. However, the consequence for the city is an inordinately long delay in securing bids and paying bills; the result of these delays is that many potential vendors refuse to sell to the city, and that those who do sell to it have to charge higher prices in order to make up for the additional expense of dealing with it. Thus, a strategy designed to increase competition and reduce the cost of goods has the perverse effect of reducing competition and increasing the cost of goods.

Information System

Turning now to the second of the five areas, the information system, the cyberneticist begins by examining a mayor's sources of information and the characteristics of those sources.

One of these sources is direct personal observation: the mayor sees and hears things as he goes about the city. This is a good information channel, but obviously it is exposed only to signals within a restricted portion of the spectrum and has a limited capacity.

Information input to the mayor is also supplied by his subordinates, who constitute a well-structured feedback source, but whose signals are selectively amplified. Therefore, a mayor, like any chief executive anywhere, must maintain a subliminal defense and wonder, "Why is this particular individual giving me this information at this time?" Perhaps it is an effort to get a larger piece of a limited budget, or it could be an attempt to whitewash an incipient problem in the subordinate's area of responsibility.

The press and other public media represent yet another information source for a mayor—a good source, but only for carefully filtered signals, those that portray dramatic events.

A mayor also receives information from the "establishment"—the leaders of political, religious, business, labor, and academic groups, for instance. The cyberneticist recognizes, however, that these are high-impedance channels; that is, the signals transmitted by them may generate resistance and, therefore, careful matching throughout the entire communication circuit is necessary in order to conduct the signal with high fidelity from the individual members of the group to the mayor without excessive distortion.

Other channels of information connect the mayor to public officials at other levels and in other branches of government. These channels may also exhibit impedance problems.

The public constitutes a major source of information for the mayor. Four particular subgroups within this source are worth considering.

1) There are the highly vociferous individuals. The problem with their signals, of course, is that they have a rather low signal-to-noise ratio and, therefore, require long-term smoothing if meaningful information is to be extracted from them. In other words, one

should look for persistent patterns in such complaints, and not overreact to isolated incidents.

2) On the other hand, special-interest groups emit signals which have very high signal-to-noise ratios, but these are biased signals. The bias must be detected and compensated for.

3) The cyberneticist also views civil disorders as information-bearing signals from the public. Unfortunately, these signals are rather powerful; they saturate the system, and this tends to set off the circuit protectors of the society, with the result that the only information received is the information that the system has failed—at least with respect to the groups immediately responsible for the disorders.

4) Finally, elections are the classical democratic institution for channeling feedback from the voters to the mayor. The problem with this channel, however, is that it is characterized by a very low sampling rate (one sampling per 4 years) and produces only one bit of information: yes or no! Polls are a means of increasing the sampling rate, and also of providing more bits of information. Elections, for example, fail to register the intensity of a voter's feelings. Why should the vote of a deeply committed individual have the same weight as that of a casual citizen whose vote is determined by a chance remark overhead at the supermarket, or by the most recent piece of campaign literature pressed upon him on election day? One might speculate about a hypothetical election where the voter has a choice of pulling one of four levers marked, respectively, "Have strong preference for candidate A," "Have mild preference for candidate A," "Have mild preference for candidate B," "Have strong preference for candidate B," where the "strong preference" votes have greater weight than the "mild preference" votes. This might be worth trying for referenda, at least, if this well-known concept from the market-research field is still considered too revolutionary to apply to a choice among political candidates.

Given the characteristics of the information feedback process discussed above, the cyberneticist can immediately identify ways to improve the quality, quantity, and flow of usable information to the mayor: increase the sampling rate, open more feedback channels, increase the bandwidth, enhance weak signals, match impedances,

suppress noise, and correct biased signals. Recent innovations in New York City, although modest in scale, attempt to do just this.

One of these innovations was an effort to bring government from City Hall into the community by opening up several Neighborhood City Halls throughout the city and sending Mobile City Halls into various neighborhoods to find out what the local problems are and what the people are thinking—that is, to increase the sampling rate and open more channels. (One can speculate that, with computer consoles in Neighborhood City Halls, the computer may someday become the electronic equivalent of the old ward healer, making possible convenient, decentralized data acquisition and delivery of services, but with centralized coordination and control.)

A second example of improved information feedback is the Mayor's Urban Action Task Force, now being emulated in other cities. In essence, the objective of the Task Force is to bridge the communication gap between the people and the executive branch of city government. High-ranking appointed officials are assigned liaison roles in specific neighborhoods, in addition to their normal duties. They tune in on the same wavelength as the community and keep in touch with local leaders, youth groups, neighborhood civic associations, and community corporations, and coordinate the delivery of municipal services in 44 areas, ranging in character from ghetto slum to upper-middle-class area.

The Action Center and the Night Mayor program, which together constitute a round-the-clock complaint bureau, serve the cybernetic role of enhancing weak signals and suppressing noise.

Administration

Administration is the weak link in the cybernetic loops of the cities. Goals may be set, but it is up to administrators to activate and guide the process by which broad goals are translated into specific objectives and by which resources are allocated and expended to convert objectives into achievements. This requires appropriate personnel, structure, and theory. All three are problem areas.

Salaries account for the largest part, by far, of local government costs. Yet,

the decades of neglect since the Depression years—when cities had their pick of employees—have converted state and local government into a refuge for mediocrity. This shows up all over the country in the form of weak managers, uncivil servants, and employees going through preprogrammed motions while awaiting their pensions. The result is mindless bureaucracies which appear at times to function solely for the convenience of their staffs, rather than for the public whom they ostensibly serve. When Servan-Schreiber alerted Europe to the challenge posed by America's managerial prowess (5), he wasn't thinking of our civic ineptness.

One step taken in New York to start changing this dismal picture was to increase executive salaries, a reform which preceded the Kappel Commission's recommendations (6) for analogous action at the federal level. In the past, a greater proportion of senior city officials came from political party circles, and city salaries (together with the fringe benefits of potential judicial appointment or other political rewards) were ample for purposes of recruiting from this limited labor pool, although not competitive in the free market for experienced executives. The increase in salary levels has enhanced the City's ability to compete for talented people from various relevant fields and to reward capable civil servants.

Another salutary change results from the "people power" marshaled by the Mayor's Volunteer Coordinating Council. Ten thousand volunteers, including corporate executives, computer experts, lawyers, and housewives, work in 61 city agencies. More important than their contributed labor is the fact that, with their independence, they can challenge the status quo. They bring new ideas and fresh approaches to ventilate administrative bureaucracies which have sealed themselves off from the outside world with the bricks and mortar of inbreeding and complacency.

It is interesting to speculate on the effect on personnel of the 4- to 8-year turnover in government administrations. The new personnel usually enter office on a platform of promises to clean up the mess, make a clean sweep, reform the system, and otherwise tighten up and improve upon the flaccid performance of their predecessors. This would seem to lead to a permanently autocratic style of government management, a style which looks upon in-

herited employees as an alien force of sluggards who must be brought under control and made to toe the mark. This approach is the antithesis of the democratic, participatory style of management in which people are considered to be an organization's greatest asset. The latter style has been found consistently more effective than the former in achieving high productivity, in a variety of organizations throughout the world. Perhaps this explains why government bureaucracies tend to have low productivity: the political process produces a management style which brings this about.

It is also worth remarking on the observed American tradition that lawyers be represented in upper echelons of government in disproportionately large numbers. Young lawyers in private practice, to a much greater degree than other professionals, have control over their time, meet clients with means, and deal with the power structure. This gives them an advantage in political work, and leads to their election or appointment to government posts. However, their professional training is valuable only in the judiciary (and perhaps marginally in the legislative branch, where drafting bills is a minor aspect of the legislator's work). Legal experience is of no discernible value to a line commissioner or administrator in the executive branch of city government. The best experience for running large, complex government bureaus and departments is management experience in large, complex corporations, unions, universities, or other behemoths.

Structure of Government

Even the best of personnel will be ineffective if poorly organized. Incredible as it may seem, until recently the New York City government consisted of about 50 separate departments reporting directly to the mayor! This improbable structure was thoroughly overhauled and reorganized by consolidation into ten superagencies, in 1966. This has reduced the span of control to a more manageable number of subordinates, and offers the promise of improved administration. One of the superagencies, for example, is the Environmental Protection Administration, which consolidates the departments of Sanitation, Air Pollution Control, and Water Supply and

the Bureau of Waste Treatment. In other words, solid, liquid, and gaseous wastes are being treated as an entity, and, hopefully, the city will evolve more coordinated and comprehensive policies of waste management.

Other structural changes include the formation of the Office of Labor Relations, which is a mayoral agency, and the Office of Collective Bargaining, which is a joint creature of city government and organized labor. The Office of Labor Relations is the professional negotiating arm of the city government; its creation is a great advance from the recent past, when the entire burden of labor negotiations was borne by a shrewd and wily trader on the mayor's staff, whose bargaining approach was straight out of a middle-eastern bazaar. It was easy then for the head of a municipal employees' union in New York to claim that he had more people working on research, data-gathering, and statistical analysis in preparation for labor negotiations than the City did.

As for the Office of Collective Bargaining, despite the much-publicized labor disputes in New York (and elsewhere—a result of public-sector labor militancy reminiscent of the industrial labor scene in the 1930's), its quiet successes far outnumber the raucous failures.

Politics has been defined as the business of who gets what, when, and where—that is, the business of resource allocation. A principal responsibility of the administrative structure is the allocation of resources to government programs. The resources consist of matter, space, and time. Through allocation of the right kinds and amounts of matter (personnel, supplies, equipment, facilities, and money), work space, and land to well-planned programs over a considerable period, the objectives of those programs are likely to be attained.

The "business" of resource allocation is conducted within every organization and is salutary, for it is the source of alternatives for organizational actions. Recently, this business has acquired some theories to support it, and rational guides to resource allocation in government have become available.

First, there has been a determined drive to develop and apply planning-programming-budgeting systems throughout city government. This has required arduous explication of departmental objectives, conscious relation of alternative programs to those

objectives, evaluation of the alternatives in terms of cost and effectiveness, and budgetary allocations to drive the programs selected.

New York is the first city to establish a Management Science Unit, which utilizes the tools of systems analysis and operations research to identify and quantify objectives and to select suitable means for attaining them. The City also retained the Rand Corporation on a large scale to assist it in developing planning-programming-budgeting systems and to conduct systems analysis studies, primarily in the areas of police, fire, and housing. This relationship was subsequently expanded with the formation of the joint New York City-Rand Institute, for applied development work on urban problems.

Goal-Setting

Goal-setting remains the most intuitive element in the city's cybernetic system, a wise choice of goals being dependent upon the acumen, sensitivity, and (apparently) extrasensory perception of the chief executive. However, he is aided in this task by information from the very same channels which report on the performance of his government, inputs which clearly affect his choice of goals and priorities.

It is important to recognize that citizens have multiple roles in the cybernetic process. Someone may be part of the system being acted upon by government, but he may also be a vocal element in the information feedback subsystem, he may be employed by the city in the administration subsystem, he may be a member of a politically powerful organization and add his strength to influence the setting of goals, and, if he takes advantage of federal mortgage subsidies and moves out of the city into the suburbs, his movement, although Brownian in scale, is a sociodemographic disturbance to the urban system.

The recent activation of community planning boards is a move to formalize participatory goal-setting. Neighborhoods which are historical and topographical entities have been recognized as community planning districts. They receive staff support, a modest budget to use for determining community sentiment and goals, and a mechanism for expression that goes beyond the traditional opportunity to write letters to their elected officials.

Disturbances

Let us look now at the last element of the cybernetic loop, the disturbances which affect the system. Disturbances are the independent variables which act upon the system from the outside and over which local government has no direct control.

Primarily, the cyberneticist recognizes that municipal government is only one of the agents—and a minor one at that—acting upon the system of city and people. Corporations, banks, construction unions, and medical societies, for example, all have a more significant impact upon certain of the performance variables—certain conditions of the system—than local government has. In other words, with respect to many factors in city life, the “disturbances” are more important than the explicit actions of local government.

Disturbances can be classified as social, economic, political, or natural. As an example of a social disturbance, one can cite the revolution of rising expectations that is affecting not only our cities but the entire world. Recessions, wars, inflation, and high interest rates, which have a cataclysmic effect on the economy of the city, are economic disturbances which are beyond the control of a mayor. Political disturbances affect the city when changes in administration at the state or national level have a profound impact on urban programs. And, of course, there are natural disturbances, such as the droughts, floods, tornadoes, hurricanes, and earthquakes that afflict some cities.

For examples of government-induced disturbances originating at other levels of government, one has only to consider the highway construction and mortgage policies of the federal government, which “developed” the countryside surrounding the cities and peopled it with the cities' middle class. Also, it is evident that the nation's welfare policies, particularly as implemented in certain states, have influenced the rate of migration from southern rural shacks to northern urban slums.

For a more specific, local example, consider the change in federal law which led to a change in state law that forced New York City to drop 43 percent of the participants who had been enrolled in the Medicaid program. Over a million people were dropped—a disturbance indeed! This large and sudden fluctuation in load caused administrative havoc and made it appear

that the City was incapable of handling routine administrative matters. The legislators failed to consider the response time of the administrative mechanism when they designated the effective date of the new law. To make matters worse, the load reappeared as an equivalent disturbance in the municipal hospitals, as patients who lost their eligibility for Medicaid no longer sought private medical care and crowded the municipal hospitals.

The cyberneticist deals with disturbances in one of two ways: through feedback control or through “feedforward” control (anticipatory control). Under feedback control, when a disturbance acts upon the system the performance deteriorates and information feedback causes control action to be taken to counteract the disturbance and thereby restore the system to the desired performance level. In contrast, feedforward control *anticipates* the effect of the disturbance on the system, and causes action to be taken to counteract the disturbance *before* the latter can affect the performance of the system. In other words, feedforward control involves planning to accommodate predictable, externally caused changes that would otherwise impact the system.

Clearly, feedforward control (planning) would appear to be the preferred mode of handling predictable disturbances, feedback control being used only to cope with unexpected upsets. Unfortunately, two characteristics of government conspire to limit the applicability of feedforward control.

1) Problems not perceived as problems by the mass public are problems not acted upon. In other words, if an intellectual or scientific elite points to a large problem (like the population explosion, for example), this is not sufficient to cause government to mobilize large resources to counteract the expected disturbance. Only when a sufficiently large body of opinion is aroused can government begin to plan and take anticipatory control action (such as fertility research or various birth control programs).

2) Feedforward control does not work too well, because the predictive models for social phenomena are poor. We have difficulty in forecasting the magnitude of the effect that a disturbance will have on system performance, and also difficulty in calculating the kind and quantity of anticipatory corrective action that should be taken in order to cancel out the disturbance.

For example, it was predicted that the New York State Medicaid legislation (an external variable) would have a certain (budgetary) effect on the financial state of the City (and State). This prediction was wrong, and the cost to the taxpayer turned out to be much greater than had been expected. The reason: State planners assumed a low enrollment rate, due to ignorance and apathy, but welfare rights groups, neighborhood groups, and legal clinics in poverty areas were effective in making contact with, and educating, eligible patients and helping them enroll in the Medicaid program.

Summary

The cyberneticist, practicing his profession in the environs of city hall, finds that city government can be viewed as a feedback control system. The basic elements of goal-setting, information feedback, actuation, and disturbances are present, although not in familiar form. An examination of those elements is useful for disclosing ways to improve urban government. This analogy suggests the possibility that the cybernetics sector of the intellectual community can be drawn to the problems of the cities in earnest, and that

political scientists, public administrators, and urbanologists will avail themselves of the rich concepts and theories of cybernetics to help guide improvements in urban government.

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NEWS AND COMMENT

Progress Report on the Big Accelerators

1. Batavia

Batavia, Illinois. At a time of deep gloom in the American scientific community, there is little but "good news" emanating from the National Accelerator Laboratory, the site of the giant new proton accelerator which is under construction here on the flat Illinois farmlands some 30 miles west of Chicago. Despite slower-than-hoped-for funding from the federal government, the builders of the new high-energy machine expect to have a usable proton beam by mid-1971, a full year ahead of schedule. This must be counted a surprising achievement in these days when long construction delays and substantial cost overruns seem routine. Moreover, the accelerator chieftains expect to commence operations on a limited basis at 500 Gev—well above the 200 Gev originally planned as the start-up energy.

With everything running so smoothly, the United States seems virtually certain of surging a giant step ahead in the international race to achieve higher and higher energies. The most powerful accelerator currently in operation—at Serpukhov in the Soviet Union—reaches only 76 Gev. The European Organization for Nuclear Research is planning a 300-GeV accelerator which might ulti-

mately be boosted to 800 or 1000 Gev (see following article) and the Russians are considering an accelerator that might reach 1000 Gev, but both projects are still in the talking stages.

There are many critics, both in the scientific community and outside it, who question whether the new accelerators are really worth the mammoth sums they cost. But such sentiments are not detectable out here on the Illinois prairies. The high-energy physicists hope the new machine will help them gain insight into the bewildering variety of elementary particles that has been discovered in recent years. In particular, they hope the new machine will provide answers to the question of whether two particularly important fundamental particles that have been postulated—namely, the quark and the intermediate boson—really exist. No one can say for certain what energy will be needed to answer these questions, but the higher the energy the better the chances.

To refresh the minds of those who may have forgotten, the accelerator ended up here after a long and acrimonious political wrangle over where the new pork-barrel prize should be located. Initial design of the machine had been carried out at the Lawrence

Radiation Laboratory in Berkeley, and the assumption was that the machine would be located in Berkeley, but after loud complaints from midwestern representatives that their region was being shortchanged in the awarding of "big science" plums, a nationwide competition was held to select the best site. To no one's surprise, the Midwest won out. The winning site was the now defunct village of Weston, Illinois, a cluster of some 100 modest frame houses that were the remains of grandiose development schemes that never panned out.

What to call the new facility has been a problem from the beginning. Initially, it was generally referred to as the "Weston accelerator," taking its name from the village, but laboratory officials have tried hard to shed that name, partly because Weston no longer exists, and partly because the name has bad connotations. Weston, after all, was a real estate "bust." Moreover, its name became associated with the fight over open housing that occurred when the site selection was announced. The facility is currently called the National Accelerator Laboratory, and it is often identified with the nearby town of Batavia. But the Atomic Energy Commission has already announced that the laboratory will be rechristened the "Enrico Fermi Laboratory" in 1972, in honor of the late pioneer in nuclear