

# Hill Farm, With Computer

by Frank M. Bryan

Vermont sat out the urban industrial revolution. We flirted with it here and there, in places like Springfield, Windsor and Winooski. But, by and large, the great historian Toynbee was right when he said Vermont was above the optimum climatic area of America. We simply did not take part in the great social upheaval that has defined the very essence of "Americanism" – the massive wave of urbanization, production and hierarchical organization that swept the United States between 1840 and 1950.

Vermont historians have called this the "dark age" of Vermont development. The nation changed. We marked time. Vermont became a place for leaving.

Charles Morrissey notes in his *Vermont: A History*, "When Greeley said, 'Go west, young man, go west,' he said it to another Vermonter, Josiah B. Grinnell of New Haven [Vermont], who went to Iowa, founded the famous college town which bears his name, was elected to Congress, and became Iowa's best and most famous publicist."

But there is one giant asterisk to these observations. Progress was and still is defined in America as "growth" – bigness and giantism. It has always been a short intellectual step between the idea of "no growth" and the idea of "no progress." A close reading of Vermont history will show, however, that while Vermont sat out America's *urban industrial* revolution, it took part in and even led America's *technological* development.

Vermont has always been an incubator for technology. Since Ira Allen, the observation has been made that Vermonter were "talented tinkers." Vermonter have invented measuring devices (the platform scale, the globe, microphotography), implements of communication and transportation, engines and machines to *drive* industrial production – but they were used

elsewhere. The electric motor, which replaced steam as the power source of industrialism, was invented by a blacksmith from Brandon. The platform scale, which revolutionized marketing because it allowed measurement by weight rather than bulk, originated in St. Johnsbury.

When Vermont emerged from its "dark age," it found itself, in fact, in an *enviable* position. On one hand, it was steeped in the prescription of the third wave, post-industrial era – a faith in the use of technology to make life better. On the other, Vermont had no mortgage carried over from the industrial age: pollution, burned-out cities, corrupt macro-political institutions and social anomie. Its unique mix of technology and human scale institutions will now allow it to *lead* America into the twenty-first century, not follow it.

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The national image of Vermont as a society happily mired in the nineteenth century is profoundly at odds with reality. Year after year we rank in the top five states in the percentage of our work force employed in "high tech" industry. It is more than symbolic that the single most important event in the history of Vermont's industrial growth in the post-war period was the coming of IBM to Essex Junction in Chittenden County. The computer itself is the drive chain of the third wave, technocratic era. It is also the single greatest reason there is hope for a resurgent democracy in the twenty-first century.

Take, for instance, the Consensor, developed over ten years ago. This little gadget fits in the palm of the hand and allows hundreds of individuals in a meeting to vote in secret on an issue and have their preferences recorded, tallied, and reported almost instantly. Imagine this in use at a town meeting where secret ballots take up too much time, as everyone must walk to the

front of the town hall and drop a ballot into a box to be counted by hand. This technology allows far more sophistication than a simple yes or no response. Participants can register *degrees* of feeling on a vote.

Teledemocracy (as it is called) also allows for a wide range of exciting new options in referendum voting, remote access to school board meetings or planning commission deliberations, and instantaneous recall of large amounts of information for immediate consideration. If a state trooper can call up a computer in Montpelier to check the registration of your car, issue you a ticket, and record the information, all from the shoulder of a windswept highway at midnight, surely town meetings can as quickly call up information on such matters as tax rates, spending projections, highway use and educational expenditures.

Democracy is impossible without allowing local discretion in decision-making. The use of advanced telecommunications technology also breaks down long standing barriers to all manner of local options. The local income tax has long been advocated by progressives for a variety of reasons. The argument conservatives have against it is that it is administratively cumbersome. Not any more. Electronic money can be transferred in the blink of an eye by formula-driven computer technology. One line on a state income tax form could direct, for instance, five percent of your state tax levy back to the locality automatically, untouched by human hands. Such a tax, if progressively arranged, could then be used to alleviate the property tax burden and help end what some see as the cause of uncontrolled growth in Vermont – inter-town competition to "develop" for property tax gains.

Finally, communication breakthroughs and computer-based information systems can be used to support a dramatically improved information infrastructure for local, and thus democratic, decision-making. As this essay goes to print, the legislature is considering funding a geographic data base system that will revolutionize our capac-

ity to make decisions on where to bury our garbage. Equally essential data sources could and should be developed in the fields of social policy as well – education, welfare, community mental health.

Often we are told that “local officials will not use computers.” Some will and some won’t – but their kids will, and their kids will use computers much as we use automobiles. The coming democratization of information will unleash a passion for democracy unequalled in this century. The computer itself is a metaphor. The original computers were massive, centralized structures taking up entire buildings. Now their power is harnessed in devices that will fit in one’s lap. Techno-tyranny once laid on us by computer operators who “ran” our programs (if we got there on time with our job cards in order) is gone. Now we can calculate regression equations in the palm of our hands as passengers in an airliner 20,000 feet above Mt. Mansfield.

I see in the Vermont town meeting of the future (in the year 2050) a giant television screen, much like we have in ball parks today. There is a debate going on concerning the public funding of kindergarten transportation. A young woman in the middle of the crowd has been punching in a series of instructions on a mini-terminal in her hand. These instructions have been queued up on the state’s computer system located in Northfield.

“Mr. Moderator,” she calls, and stands up while her husband holds the baby.

She is recognized to speak.

“You’re wrong,” she says to an earlier speaker. “The average cost for transportation to kindergarten in Starksboro is *not* above the statewide average. May I?” She looks at the moderator.

“You have the floor and the computer.”

She presses a final button and on the huge computer screen, perched on the basketball backboard, there appears a simple chart showing transportation expenses for kindergarten by town size and highlighting Starksboro’s position on the chart.

“There!” she says and sits down.

This is no fantasy. The computer technology to do this very thing is available right now. To say there is no way we can use it at present is not to say we should not work in that direction. The most joyful element in this scenario is that Vermont has preserved its democracy and needs only to apply technology to it. Most places in America find themselves with the technology but without their democracy. They will have to *reestablish* it and retrain themselves in democratic habits and thinking. Vermont *has* state of the art democratic institutions: our town based system of creative localism, our human scale structures of public decision-making.

More than anything else, Vermont is a democracy. Our most precious resource is not our hillsides flushed with October’s red, our sparkling waters and deep greened hills. If we take democracy away even the most beautiful landscape of hill and dale, pasture and farmstead is ugly. Farmers, of course, know this, for farming and democracy are one. Farming breeds the ultimate appreciation for the key variable that must be present for democracy to work – a patience with the tension between liberty and community, between freedom and unity. For the farmer freedom is the capacity to do anything to the land. Unity is the land itself. The land has its own laws, the laws of nature that continually infringe on the farmer’s freedom. So the farmer bows to those laws, to the “community of the earth.” Freedom is tractor and plow. Unity is rocks and erosion. The farmer lives with this and knows democracy.

It is not “progress” to strip our society of the opportunity to govern at the local level. The future is not incompatible with democracy – the past is! Not our past, but America’s past. We leaptfrogged that past. We are free of it. Let us take our own past, mold it to fit the contours of the future and enter the twenty-first century with our self-respect and our democracy intact. □

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