The Plan Is To Act

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ABSTRACT—Forestry is rapidly turning into a species of resource planning, which is itself a process made up of intelligence, design, choice, action and feedback phases. The fact that action is the object of planning can be effectively taught by involving students in solving real life resource problems. "Live teaching" can offer exciting new learning experiences to both students and faculty.

Probably only a few of us remember the National Resources Planning Board which despite some excellent work died shortly before World War II. This massive state and federal effort finally came a cropper by telling it like it was in some southern congressional districts. In the aftermath the word "planning" was an anathema in the Congress, so that one of our states found it politic to operate its farm planning program under the code name "balanced farming." During this time, forestry schools, even though they had always featured planning as the core of their profession, escaped stigma partly because they used their own planning jargon of silviculture, management, forest regulation, sustained yield and multiple use.

Today, however, fashions have changed and anyone can become respectable in the land-use field by calling himself a planner. However, it is unlikely that he can get along without being familiar with systems analysis, computer science, modeling, mathematical programming, simulation, decision theory, and other tools of the planner's trade. Most forestry schools have jumped in with both feet and are turning out better trained forest and natural resource planners than ever before.

I can only applaud such changes because I started my own career bringing farm planning technology into the forestry field. Of course, no one now remembers such techniques as "operating unit budgetary analysis," "partial analysis" and the "synthetic method"—but these were new ideas in the late forties. Besides, I made a living at it so there was obviously some personal value in the whole enterprise.

Emphasizing Action

If the name of the game is now recognized as planning, and we have a bulging kit of power tools that help make the decisions needed, and furthermore, we have an excellent text (*1*) taking shape for teaching forest planning, why should I be worried? I believe our ideas are sound now that foresters have shucked off the idea that a master plan or blueprint of the future is the object of the exercise. We are on the right track to talk about planning as a "process" with such clear primary components as gathering intelligence about the system we control and its environment, designing optional ways to remove troublesome misfits or rough spots, choosing the best alternative solution, putting the new scheme into action and finally watching the outcome so further adjustments can be made as the need becomes apparent. All the elements of a continuing way of life are there—intelligence, design, choice, action and feedback—spiraling into infinity. Even with all this I am still concerned about two things: striking a balance in teaching about these elements, and bringing an invigorating sense of reality into the school.

First, balance. It appears to me that we have been carried away by our enthusiasm for analytical tools. As we become master mechanics (or if you prefer the more dignified term expert analysts) we give too much weight to technique and not enough to the purpose of the machine.

Outside the classroom, in the real world we and our students inhabit, there is already a well recognized plan. Anyone responsible for natural resources is busy acting on some neutral stuff and some people to gain his ends. The plan is, therefore, to act. A more elaborate analysis will only be used when the results clearly

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promise to be better than those from action based simply on well trained intuition.

Think back in your own life about how many plans never came alive because the maker got carried away with his design and analysis and forgot that someone had to act on them. I have made a good many plans that I am sure lie moldering on some forgotten shelf because I did not tailor proposals to the individual's capacity to act. Or alternatively, did not include as part of the scheme a program to increase his action skills to match the plan requirements.

After enough such fiascos I now believe that building up a capacity to take effective action is even more important than choosing the right technique to plan what needs to be done. Well trained and intelligent people who can act will do a good job even with a poor planning process. Furthermore they know their limitations and are not for very long satisfied with anything less than the best planning process available, once they are convinced that it will usefully supplement their highly developed intuition.

Lessons from Germany

The importance of having an adequate institutional frame into which modern planning methods can be injected became very apparent to me during my stay in Germany last year. I got familiar with the forest administration of the state of Baden-Württemberg. As you may know, each state uses the same principle as our own federal service in that the forest district is the basic operating unit. What I had not realized was the fact that being a district forester is the ultimate goal of every professional. Once you get a district, you have really arrived and are fixed for life.

The system of permanent tenure to manage the forests in an area about the size of a New England town insures that the district forester knows everyone and every thing in his baliwick. Over the years a good man has time to learn the idiosyncrasies of how his forests grow, what his users think they need, and how his patrons react. This develops a group of foresters highly skilled not only at designing a significant role for their forest resources, but also in becoming themselves an important part of the social fabric of their districts—thus avoiding many of the serious failures of communication we sometimes suffer.

The danger of becoming overly provincial is recognized, and a number of institutional arrangements are set up to counteract it. One is the use of work meetings. There are several kinds, first an intermittent round of conferences with neighboring district foresters to bring their activities into concert wherever problems overlap district boundaries. Then one also attends meetings with his regional compatriots and people from higher administrative levels and the universities. These conclaves are not just social occasions, they are serious working discussions at which common problems are fully aired. Often a forester will have to present a study paper at a meeting and discuss it for two or three hours. I judged the caliber of such papers to be equal to those in our scientific journals. In addition, the paper is likely to be printed in the forestry news journal and to be read by all foresters within a month. All told, meetings and prompt publication and distribution of papers tend to keep district foresters on their toes. The same is true of people at higher echelons. And university professors work closely with all levels.

The first job is another technique used to train recent graduates from the university and simultaneously to keep district foresters abreast of the latest planning methods. A new graduate is very likely to spend his first few years making and revising 10-year plans. This puts a new man immediately into the responsible and interesting task of planning, and also brings him up against the stark realities of real world problems. In addition, he must learn to work with foresters who may have been on the job for 20 years and know their districts inside out. None-the-less in a crunch the new man can have his say with higher headquarters and the old man can only complain and request changes. Altogether this system of job experience and interchange with others is good for all concerned. Young men mature quickly over the space of a few years as they become familiar with how old plans worked out to

create present needs in perhaps 20 or 30 districts, and as they learn from the experience of as many foresters.

Recognizing Values

As a side light on integrated forest management I found the German approach very stimulating. We think of German forestry as being totally oriented to timber, because that idea was imported here at the turn of the century. However, every district forester I spoke to told me that although every acre produced wood, his forests were really more valuable for the other social values they produced. This seeming change has surfaced in the last few years since multiple use has become part of the German vocabulary. Typically, the idea is being rationalized as the result of another of those ubiquitous meetings, this time between state planners and university professors. The first study was completed last year to find out what special values were already legally or customarily recognized in the forest management of each state (*2*). Collectively these values which people realize from a forest and which require some special management practice are called the "social functions" of the forest. They are generally not marketed like timber, and altogether about 68 different functions were found already in use. About 13 concern recreation; the rest include the management of forest to protect, enhance or ameliorate water, soil, air, noise, highways, nature, wildlife, research, and so on.

As you can imagine there are some rather refined divisions differentiating some of these social functions, and some near duplicates. But the process of codifying and defining is well underway and some district plans are already laid to help managers cope with and control the complex of timber and social functions that flow from their forests.

At first glance the system of making 10-year plans for each district, with approval required by higher headquarters, followed by yearly progress reports and 5-year reviews seems dangerously centralized. The whole system could get severe bureaucratic arthritis and ossify. The reality is saved by the grace of a discontinuity in the system. Flexibility appears because each annual budget needed to implement the 10-year plan is made by the district forester. With his year by year control over 10 annual work programs a district forester can find plenty of room for maneuver within the long term plan. In fact, he can institute unplanned projects costing no more than 10,000 DM on his own initiative. Over the years a good man can use an imaginative sequence of these projects to keep an outmoded decadal plan in touch with emerging reality. I suspect that it is this discretionary power at the district level that makes a decadal plan responsive enough to keep up with the unfolding situation.

Unveiling the Real World

So much for the idea that we must emphasize action as the object of planning and that special institutional arrangements may be needed to insure it. My other concern, realism in teaching, is closely related to the need for action.

I have a strong feeling that our customary approach to teaching any new subject is generally backwards. Normally we start out by presenting an organized body of knowledge about any phenomenon. This corpus is the end product of intensive rationalization which strips away the real world complexity of a subject so that the remaining skeleton is connected, logical, and understandable. Then we proceed to clothe these dry bones with models of flesh and organs and in the end hope to breathe life into it. Generally we fail to get much more than an effigy or caricature of the real thing.

This teaching approach, it seems to me, fails on a number of points. All too often students are bored to tears and don't stay with us until the final unveiling of the real world. Or if they do stick it out and absorb our abstractions and models, these often form a sort of polarizing screen over their eyes which filters signals from the real world so that they no longer see it in all its beautiful and mysterious complexity. In either case we have not increased their capacity to cope with life and forest resources as much as we should.

There are other ways to go about teaching a subject and one that seems most promising to me in the resource field is to throw students right into a real world planning problem and let them struggle until they find a solution. This reversal of the usual method has a number of advantages. The world is full of problems and some facet is almost sure to catch the curiosity of young people. Once this is done students are capable of astonishing feats of enthusiastic work and study. Also, approaching a problem without the handicap of previous knowledge, they frequently gain new insights that they would never have seen otherwise. Furthermore, after coping with complicated realities they are generally eager to find the main threads of continuity and connection that good theory can provide. All told, I propose that the texts will be most useful if read after engaging in a real forest planning project rather than before. The student will then have a visual background of experience that he can use to see the real meaning and usefulness of the book.

Using this reversal—phenomenon first, organized knowledge later—as a means of teaching forest planning is not proposed lightly. Variations of this theme have been used with considerable success in other areas. Business schools regularly teach with cases to simulate real life decisions. The case method has also been used with considerable success in teaching public administration and law.

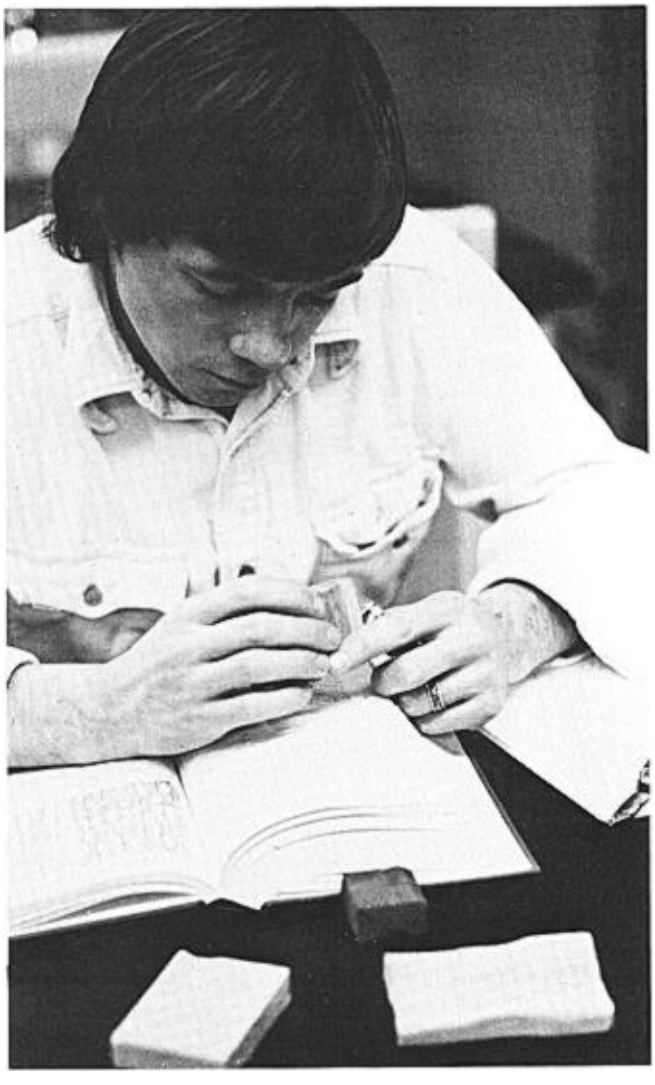
However, what I am proposing is more like the approach used to teach planning in several schools of landscape architecture. Here the students are frequently taught design by doing real life projects and defending their proposals before a jury of experts. Even better, I know of one project in Ann Arbor where student action was actually completed by installing the planned playground and studying the way it was used. And another where students at the University of Massachusetts presented their plans for the Springfield waterfront to the mayor and city planners and went on TV to air their views to the citizens of the city.

A Case Study

Last year I had the privilege of being on a jury to review a development plan made by students at the University of New Brunswick. This was a special project concerning forest and land use development in a remote valley with a dead end road that would soon

face the change induced by a new provincial park. The students spent a good deal of time on the site assessing possibilities and talking with residents about their hopes, fears, and aspirations. The job they did of analyzing and presenting options to a delegation of citizens from the valley was truly impressing.

However, what was most spectacular was the enthusiasm the students had for the project and the revealing insights they had gained. They had the elaborate information contained in the Canada Land Inventory so that they were equipped to do a good resource capability analysis. However, being on the site and talking with the residents they pinpointed two critical nonresource problems. The first was the fact that no plans were meaningful unless access to the area, which was not controlled by residents, could also be planned. And most important, there was no institution or group ready to select a plan or put it into action. This last was most interesting, because the students knew they were merely engaged in simulated planning as a learning experience. But the project was so real to them that their chief off-the-record concern was "What happens in the valley next? Who will take what has been learned and carry it forward the next step toward action?" Unfortunately most of the students were seniors and would disperse at the end of the year. So they planned to have the project reviewed in the alumni news so that they could keep in touch, but most



had little hope for progress because there seemed no way to get further action.

This suggests that in order to learn the most from this live planning experience it should have started when the students were perhaps sophomores. Then they could have had the even more enlightening experience of pushing the planning process a couple more years down the road. I suspect that the students, the valley citizens, and the province would all have benefited from the continued involvement of fresh young minds in real life planning process.

When Professor Norman Kissick was a Bullard Fellow at the Harvard Forest we talked a lot about "live teaching," especially at his home base at the University of New Brunswick. We concluded that one way to learn forestry by doing would be to have each incoming class organize itself into a kind of planning firm which could undertake to solve appropriate current land use problems. The faculty could then become consultants on call when the students needed their expert knowledge. Properly thought out, much of the faculty course work could be taught while acting as consultants with the students about their difficulties.

A series of increasingly complex problems scheduled over four years could produce some very well trained and experienced forest planners. It would also be an interesting return to an earlier Italian concept of a university as a place where the students hire and pay the professors. But this is incidental compared to the real possibility of involving students in a sequence of broad gauge learning experiences that would make them vividly aware that the social, biological and physical sciences and the humanities all provide useful insights about this complex world we live in.

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