

REPORT OF THE COMMITTEE TO VISIT THE  
HARVARD FOREST

TO THE BOARD OF OVERSEERS OF HARVARD COLLEGE:

The most important event in the recent history of the Harvard Forest is the bequest under the will of Dr. E. G. Stillman of the Black Rock Forest in New York State and \$1,125,000 of endowment. The Black Rock Forest consists of 3,500 acres in a single block in southern New York State, nearly all of which is in woodland. To meet the requirements of the New York State laws, it is now being administered by a new organization known as the Harvard-Black Rock Forest Corporation, a non-profit educational institution, but it remains under the directorship of the Harvard Forest. The income from the endowment is to be used, first, for the maintenance of the Black Rock Forest, second, for the maintenance of the Harvard Forest, and third, for any other work in forestry that the University may determine. Dr. Stillman during his lifetime also gave, always anonymously, much of the Forest's present fine plant. This magnificent bequest should assure the permanence of the Forest's activities. The income from endowment and annual gifts enables the institution just about to break even on its present scale of operations. Looking into the future, the largest single need appears to be for steady income to support permanent staff appointments, as well as funds for scholarships and publication.

The very amplitude of the facilities of the Forest has caused some uneasiness among the members of the Visiting Committee as to its use and future. Its activities seem at first blush to be disproportionate to the plant and endowment. A brief history of the Forest will aid in understanding the present plans which have evolved for its use.

The study of forestry at Harvard began in 1903, with two instructors, Richard Thornton Fisher and J. G. Jack, in a Department of Forestry of the Lawrence Scientific School. This was at the undergraduate level. The Forest itself at Petersham was acquired four years later. The center of the activity of the department, however, continued to be in Cambridge or Jamaica Plain and the Forest was used largely as a field laboratory for students,

a demonstration tract for sustained yield forestry and a station for research in forestry. The Forest came as a gift. It was without endowment, since it was expected to carry itself by the sale of its wood products.

In 1914 the school was made exclusively a graduate school and the center of activity was shifted from Cambridge to Petersham. The student enrollment dropped from a high of twenty in 1912 to three in 1915, and remained at about that level for many years. The aims of the Forest were somewhat revised. Mr. Fisher, who was now Director of the Forest, stated that the time had come to organize squarely and exclusively as an institution for research and for the advanced training of specialists. He thought that with the facilities of the Forest in Petersham, and with those of the University in Cambridge, the school had equipment for certain lines of research and advanced training that was unrivaled in the country as a whole. Thus while the demonstrational aspect was still regarded as important, research had become a major factor in the use of the Forest.

It had long been noticed that on commercial clear-cuttings of old field white pine in this region the succeeding crop was made up largely of hardwoods. Pine was considered more desirable, and the early operations and research activities of the Forest were directed toward the maintenance of the pine in perpetuity. It was thought that proper harvesting schedules and relatively simple treatments following harvest would serve to hold back the hardwoods and release the natural pine seedlings to form new stands, at least on the prevalent upland loam soils. However, serious doubts of the feasibility of this scheme began to arise when heavy insect damage to the pine seedlings began to appear, and when it became clear that the cost of holding back the sprouting hardwoods would be prohibitive. It became evident that there was a natural trend of forest development, and that the cost of diverting it, with existing knowledge of its behavior, could not be borne.

Meantime a significant development was taking place in the field of biology outside of forestry proper. This development was in the broad study of vegetation and was in the hands of botanists and plant geographers. Mr. Fisher realized that developments in this field offered materials and research methods for study of the stream of natural change that seemed to be upsetting the silvicultural plans of the Forest. The significance of working closely with men representing other disciplines led him to restate again the aims

of the Forest, and to broaden them considerably. Shortly before his death he wrote that there were, "problems in the understanding and control of forests which are not to be solved by foresters alone and which are really in the field of biology, just as there are biological processes which can best be solved in the Forest environment." Research in the broad field of biology thus became a dominant interest.

The hurricane of 1938 eliminated all possibility of the Forest supporting itself from its "white pine endowment." This was followed by the war, which scattered the staff and woods crew. No students were accepted during the war years. The situation looked pretty hopeless.

The present administration of the Forest began in 1946 and the current principles as to its use were then developed under its Director, Dr. Hugh M. Raup. In view of the shift in emphasis from the techniques of forest management to a broad approach to silvicultural research it was appropriate that the school should be guided by a trained biologist. The school is hereafter not to be just another forestry school — there are already some thirty such schools, although only two of them are exclusively at the graduate level. The time appears ripe for a move away from the simple training of foresters and for a new approach. In the early days when the profession was becoming established, the emphasis of most forestry activity was on conservation. The crusade for conservation has largely achieved its early aim; conservation is now almost universally accepted as a national policy. A more promising field now, therefore, seems to be, not so much the decrease of drain on the forests, but the increase of forest material through improved silviculture.

Advance in silviculture demands basic research. The Forest is well adapted to such research. It has a very adequate plant and forest laboratory, especially with the addition of the Black Rock Forest. Since research knows no departmental lines, forest research is naturally integrated with that in other departments of the University, particularly biology. Economics likewise enters into it and Dr. John D. Black's famous seminars in land use are brought to the Forest each year. In each of the last two years six graduate students from the Economics Department have spent a week at the Forest. Public and business administration also are involved. Others of the social sciences may well be brought in. By reason of this relationship with the whole range of activi-

ties of the University the Forest is uniquely qualified for its revised mission — the promotion of broadly conceived research and the development of men trained in research principles. The eventual influence of the school on forestry by this means may be very large.

In consequence of the decision to follow this line, the school has not applied for accreditation as a forestry school or attempted to conform to the requirements of the Committee on Accrediting of the Society of American Foresters. That this decision is understood and approved appears from a letter of the Executive Secretary of the Society which contains the following:

“However, the Committee considers that the stated aim of the Harvard Forest, ‘the training of men for the development of research in silviculture’ can be a noteworthy contribution to the solution of some of the problems confronting forestry. . . . The Council desires to commend the University for choosing to take a unique approach in making its contribution to forestry.”

The long range experiments now under way deal directly with the study of trees on the land, rather than in laboratories and offices. The programs attack the question of why trees behave as they do, naturally and under management. Investigation is conducted for example in forest soils, in the natural distribution of species, in measures to control hardwood sprout growth, in the study of root growth, fungi, and the like. Particularly significant research in forest genetics is being carried on at the Forest under the Cabot Foundation, which has been set up in the Department of Biology for this purpose.

It is a tribute to the work of Dr. Raup and his associates that the United Fruit Company has several times invited Dr. Raup to Honduras to consult about the Company’s reforestation problems there, and sent a man from its Research and New Crops Department to study at Petersham for a year. In addition to this, able students from the Biology Department, including four from the Forest, have availed themselves of a tour of the Atkins Garden in Cuba and of the Honduras properties of the Fruit Company. To the layman tropical growth seems a far cry from the problems of a New England forest. But this in itself highlights the fact that the Forest’s program is primarily in the training of students in the methods of research in problems of growth, regardless of location. It suggests that similar relationships might be estab-

lished with the silviculturists of other countries, such as Germany, Sweden and even Japan.

It is to be hoped that professional foresters interested in extending their knowledge will increasingly bring their problems to Petersham for study and exploration. Presumably it will take time to bring about a general recognition of the possibility of such use of the institution. Foresters are in the main practical men involved in immediate problems and not fully aware of how much of their present knowledge depends on the basic research of earlier investigators or how much their future work can be aided by further research which may at first sight seem theoretical and impractical.

Members of the Visiting Committee have expressed considerable concern that the graduate students in recent years are so few. The Committee feels that great emphasis should be put on making the principles of the school, and the facilities it offers, better known to the profession. Efforts are now being made to interest professional foresters. Two very satisfactory meetings of the alumni of the school have been held at Petersham and one conference to which a number of professional foresters from the northeast part of the country were invited, all of which it is proposed to continue. The Committee would welcome still greater stress upon this matter of making the purposes of the Forest generally known. Scientists do not like to advertise, but it is believed that by entirely dignified means the forestry profession could be made more aware of the purposes and facilities of the Forest.

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