

Roads and Education

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"All religion, all solid things, arts, governments - all that was or is apparent upon this globe or any globe, falls into niches and corners before the procession of souls along the grand roads of the universe."

- Song of the Open Road, by Walt Whitman.

It is not merely poetic sentiment that associates the road with knowledge and education. The association, so ingrained in our thought that we employ the road as the very symbol of the educational process, is founded like most of our figures of speech upon an actual and a fundamental relation. When we speak of the pathway of knowledge and the road to learning we make unconscious acknowledgement of the debt of knowledge we owe the road.

For, indeed, there can be no education without the road. It is the open sesame to the treasure house of nature. It is the indispensable precursor to the meeting of the minds of men. It abolishes prejudice. It reveals likeness and contrasts unlikeness. Ideas, thoughts, human experience move along it as its most precious freight. From the very dawn of civilization, past every human accomplishment, dotted with discovery and milestone with human progress, revealing, uniting, comparing - winds the road, a pathway unto knowledge.

What has been the contribution of this continent to the thought of the world? What does it mean to know California, the Yosemite Valley, the Yellowstone, the Grand Canyon of the Colorado? Who can compass the educational product of the Rocky Mountains, the Sierras, the desert lands, the Mississippi river?

What is the effect of actual contact with these wonders of creation upon the mind of him who journeys to them from the eastern cities? And vice versa, what does it mean to the plainman, the rancher, the dweller in the open places of our western country to view from the tower of the Woolworth Building the industry of our greatest city?

What does it signify, educationally, when the thoughts and ideas of men dwelling amid such different environments as New York and Cheyenne, Detroit and Phoenix are fused into a composite expression? What is the effect - nay, what has been the effect upon the thought of the United States - of the joining together of New England and the South, the Plains Country and the Far West?

America as an education is stupendous beyond expression, and it is so because of its untrammeled highways by which I mean, of course, its railroads and waterways as well as its roads. Because of them there is no such isolation of thought and experience as is still to be found elsewhere in the world - even in Europe.

In the unfolding of the educational resources of America each of the three main classes of highways have played their important

parts. Each has still its particular mission; but each has had its day of preeminent development. First the river and the canal opened the way by slow degrees, then the period of great railroad expansion, covering, as it were, in a moment of time this whole vast country with a network of steel highway and opening to settlement and development the most remote areas, - and now the public road.

Throughout the other periods the road has played its humble part. It has been the forerunner of the railroad, but when the railroad came it has retired with becoming humility to the second place, serving the masterful road of steel by feeding it with the commerce which is its life blood, and carrying the benefits borne from distant places even to those so remotely situated as to be beyond the reach of the railroad.

So has the country been settled and developed; so have the rivers and the railroads rendered their great service and still there is more in America to unfold. And that is the task of the modern road and the automobile.

The modern road is everything that the road has always been, plus. It renders the old friendly service to the community, - uniting neighbor with neighbor, farm with village, store with customer, school with pupils, church with worshippers - but it does these things better and more fully than before. It is a better road and there are better vehicles to travel it and because of these facts

it has drawn into the community those who have heretofore been almost exiles - those unfortunates that the railroad ignored and the old road discouraged.

One of the salient contributions of the modern road is its service to the cause of education in its specific sense. We have been proud of the little red school houses which have dotted our land. They have stood for a symbol of educational opportunity. But the improved road and the automobile are giving us, in the consolidated school house and centralized high school, educational institutions as far superior to the cross-roads schools as the new roads and vehicles are to those of the passing day.

In many sections of the country the rural schools already are the equal of the best in the cities, and the children are brought to them by automobile over the good roads. I was much surprised to learn that the system of public education in Mississippi which is being built up upon the basis of the improved roads is regarded, from the educator's point of view, as the equal of that of Massachusetts. What is being done in Mississippi is possible in every State and one does not need to have particularly keen foresight to vision the time when the old difference between rural and urban educational facilities will no longer exist. It was a product of isolation, and the roads which year by year reach out even to the most remote sections are gradually removing the cause.

I am not sure, however, that the service that is thus rendered by the better roads to the educational institutions of the rural sections is not far outweighed by the invitation they hold out to the whole people to visit their neighbors. We are given to evaluating these new roads we are building in terms of the ton-miles of traffic they accommodate and the lowered cost of transportation, and they need no other explanation; but were we able to view the great activity we are now engaged in with the eyes of those who fifty years hence will look back upon our work and appraise its lasting worth, I am not sure that we should not value more highly than the saving of dollars, the intermingling of our people which the modern roads invite.

We are finding the evidence of the extent of this movement of the people in every census of traffic we take. In cases we find that the "foreign cars", by which unfortunate term we refer to the automobiles which carry the license tags of other States, outnumber the home cars. The tourist is everywhere in the summer season. Georgia has taken to visiting Maine and New York has journeyed to California. The approach of winter is heralded in Washington as certainly by the appearance of the "tin-can-tourists", Florida-bound, as by the geese and ducks that stop with us for a space as they also wing their way southward.

When the post-war curiosity to witness the aftermath of the European struggle has been satisfied, I look to see our own

magnificent West become the Mecca for such great numbers as it has never before attracted from the Eastern States. The roads are already opened through. In much shorter time than most of us anticipate there will be dozens of available routes that will invite the traveller. That much is assured by the policy inaugurated by the Federal Congress last fall when it enacted the Federal Highway Act which provides for the selection of a connected system of interstate and inter county roads covering the whole country. The money with which to begin has been made available and from sixty to seventy thousand miles of the one hundred and eighty to one hundred and ninety thousand miles that will be included in the system are completed. The purpose will not be abandoned uncompleted. The projected system will become a reality before we realize it.

At the same time we are building with Federal funds, as properly we should, the roads of our national forests, and these roads will of course articulate with the adjacent State and Federal-aid highways and thus will bridge the gaps in State jurisdiction which in some of the Western States would otherwise be a serious bar to travel. These roads have significance in one respect which is not fully realized. As a people, proud of our heritage of natural beauty and grandeur, we have set aside the most inspiring areas of our western territory in national parks and reservations where they can not be exploited for private gain but will be forever preserved for the benefit of the whole people. It

is not necessary to dwell upon the educational value of Crater Lake. There is no question that every one of us would be both better and wiser could we but have the opportunity to look upon its matchless beauty, its perfect grandeur. The significance of the forest roads is this - that they are the only means of approach to Crater Lake and practically every other of the scenic wonders of the West, because the great National Parks are practically surrounded by national forests.

Yes, there is no question that these roads we are building, by broadening our horizons, will make us a wiser people, a more tolerant people - for is not prejudice the product of ignorance - and a more Christian people.

It has been the proud privilege of the Bureau of Public Roads to take an active part in all the efforts that have been put forth to develop the public roads of the country. It has not always had the popular support which now is freely given. If it now appears that the roads themselves will be a great educational force, there was a time, not long since, when it was necessary to carry on a program of education to bring the people to see the advantages of improving them, and later to teach the road builders of the country how they could be improved. Before we could begin upon the splendid program of scientific road building which is now under way throughout the Nation it was necessary to teach the people

that road building is something more than temporary occupation for political satellites. So we like to think that the Bureau, which from the beginning has had a share in these endeavors, has been in a very specific sense an educational institution.

In the midst of the concerns of practical road construction on a large production basis, it is still carrying on its educational work. Tremendous strides have been made in developing the technique of the highway engineer, but the changing traffic and the broader experience are constantly developing new problems for which new solutions must be found. Problems of construction and maintenance, of administration and organization and finance now present themselves which formerly were too dimly perceived to be appreciated. The Bureau is entering into the solution of these problems in the same spirit in which has met those of the earlier years, and it now has working with it many of the State highway departments and colleges, the combined resources of which, applied with harmony and a fine correlation, constitute a splendid force for research, study and technical education.

The results of its researches are available to every public agency concerned with highway construction or control and to interested individual as well. Through the highway education board, a group of men representing Government agencies and private business, its information is passed on to the schools and colleges and even the grade schools where it is applied to the education of the youth who will be needed to fill the highway engineering ranks and carry on the work that is begun.