

ical component is not so much their expertise and method as it is their perspective. They know what the problem is. They have read widely on the historical and social factors involved. Designing a social system isn't like designing a desalting plant, but a desalting plant can be an economic base around which a changed approach to an unsatisfactory social system can be organized. It is much more tricky and difficult to help correct a social ill. But to me it seems reasonable to have emerge what might be called sociotechnical institutes which would result from the redeployment of the present mission-oriented laboratories. Well, we don't have a book that says this actually can be done, but we should try as best we can.

Mr. DADDARIO. What you are doing is developing an environment in which the engineers can work together and get to understand each other. They will be talking to each other about the same problems and have their ideas rub off on one another, and this is certainly a lot better than it has been.

Dr. WEINBERG. I agree, and therefore I consider this idea of National Sociotechnical Institutes as sort of the paradigm for the Federal Research Institute of the coming generation.

I take this thought quite seriously. Support for it comes from both sides. On the one hand you see the hardware people like we are reaching out toward social science people.

On the other hand, you also see the think tanks, which are predominantly social, reaching toward hardware solutions. We have had a variety of conversations with think tankers about the possibility of having them supply some of the social science expertise that we might need.

Mr. DADDARIO. We ought to get them out of the tank.

Dr. WEINBERG. Yes.

Mr. DADDARIO. That is a boxing expression; not a very nice one.

But at any rate, Dr. Weinberg, we have reached the point where this first day's session must close.

I certainly appreciate your coming here and I do think you have given us some advice that will be helpful in the formulation of certain of our objectives and guidelines, and the criteria through which these objectives can be obtained. The committee appreciates your presence.

(The following is a brief history of the Oak Ridge National Laboratory:)

A BRIEF HISTORY OF THE OAK RIDGE NATIONAL LABORATORY

In the war years of 1940, 1941, and 1942 there emerged in the United States several physical research groups whose aim was centered on the exploration of techniques for releasing power from the atomic nucleus. The groups soon combined into three main centers—one at the University of California in Berkeley, one at Columbia University in New York, and one deliberately misnamed the "Metallurgical Laboratory" at the University of Chicago. These efforts were coordinated under the sponsorship of the Office of Scientific Research and Development in Washington, but in a year they grew so big that they needed a new administration, and thus was born the now famous "Manhattan District" of the United States Army. Almost simultaneously, the three projects, plus a fourth, demanded large-scale engineering realization of their laboratory efforts. The Army engineers in the Manhattan District decided upon "site X" in eastern Tennessee, 25 miles west of Knoxville, protectively located, rather sparsely settled, in an attractive countryside, well watered, and supplied with abundant electric power from the Tennessee Valley Authority. A 58,880-acre tract of land was