



Jean -

Thanks for letting me
see the book. (DRAMA)

I'll try to get some of
the information you wanted,
and I'll look forward to
seeing you and Elizabeth
in Nova Scotia soon.

Bob ROSEN

7/11/72

Dear Elizabeth,

I'm sorry not to be able to say good-bye in person. I've greatly valued our discussions, which for my part were too few. I hope we will have further opportunities to meet and talk in the future.

Sincerely

Robert Rosen

original to Lucia
7/11/72

COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRICAL ENGINEERING AND SYSTEMS SCIENCE • ENGINEERING BUILDING

Russell

December 2, 1972

Mrs. Elizabeth Mann Borgese
Center for the Study of Democratic Institutions
P. O. Box 4068
Santa Barbara, California 93103

Dear Elizabeth:

I'm sorry not to have been able to reply sooner to the draft report which you sent me. However, as you may have heard, the day after I returned from Santa Barbara, my wife had to go into the hospital for some unforeseen and potentially serious surgery. As you may imagine, all normal routines went by the board, and we are only now slowly returning to normal.

I think the report was extremely well written, and I really have only two substantial comments to make. On p. 13, you ask, "How far can we count on existing computer technique to help us design such models"? Indeed, I'm sure that this question was on your mind when you arranged the joint meeting with IBM. Nevertheless, I feel that computer designers and programmers are not the right people to approach for modelling insights; the best they can do is provide boundary conditions regarding technical feasibility on the people who actually do the modelling. Computer technology is only a tool, and you can't expect toolmakers, however skilled, to know a great deal about architecture. They can, however, be asked (in the present case) about current technologies for data storage, retrieval and display.

The second substantial comment has to do with the discussion on p. 18. You and I have had a number of preliminary discussions about your main point here: "no past-data basis, no matter how broad, can ever yield up the future". The essential point here is that models, like mathematics itself, rarely makes categorical statements. Models are concerned with expressing implications: if the following hypotheses are made, then these conclusions follow. The applicability of any particular model depends on how closely a real situation corresponds with the assumptions on which the model (with its attendant implications) are based. What we can hope for, perhaps, is then not one universal model, but rather a library of alternate models, each with its own hypotheses and range of validity, and which we can consult as circumstances indicate. Indeed, this was the basis of the class of qualitative models I proposed for you last year.

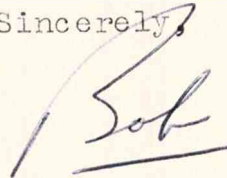
Mrs. Elizabeth Mann Borgese

December 2, 1972

One factual matter occurred to me. On p. 14 you state that a proposed power plant on the Baltic will discharge 40 million gallons of water per hour, and that water will be 10°C warmer than the waters into which it is discharged. Surely this is an upper bound on the temperature difference; that difference is not maintained all year round. Also I'm discovering that there is quite a literature on the problem of thermal pollution of large bodies of water, most particularly the Great Lakes; I could get you lots of references if you're interested.

I hope that these few comments are of some use to you, and again I apologize for not being able to answer sooner. Please give my best regards to everybody, and I hope to see you all again soon. Meanwhile, if there is anything you think I could help you with, it will be my pleasure to do everything I can.

Sincerely,

A handwritten signature in cursive script, appearing to read "Rob", with a horizontal line underneath.

Robert Rosen