All of the soil scientists greatly benefited from this experience. Correlation of like soils with fragic characteristics will now be much easier. More uniformed interpretations and consistently higher quality of mapping will be a definite and immediate result of this study.

Regional studies such as this should involve all the soil scientists who are mapping the types of soils being sampled. The value of the interchanges among party members and participants from State, Regional, and National Offices is almost inexpressible, especially in dollars and cents.

Modeling and Soil Survey

Klaus W. Flach

Modeling has been receiving much attention in the last few years. It has been important in making new uses of soil survey information. Like most new and rapidly evolving developments in any science, modeling has its fervent supporters and its equally fervent detractors. Personally, I stand firmly in both camps. Modeling has been badly misused by many people in government and in the universities. Models are being used for purposes for which they had never been intended and model predictions are being treated as facts where they are nothing better than fancy guesses.

But, I also hold the opinion that modeling represents one of the most exciting developments in soil science and that through models we will gain a truly basic understanding of soils and unprecedented use of soil survey information.

Modeling is nothing new to soil science. Any good soil mapper develops a model of the relationship between kinds of soils and the landscape and he maps ahead using this model. He usually has difficulties when he tries to verbalize such a model, let alone putting it into quantitative terms, but he could not function effectively without it. Our classification systems are essentially based on classes superimposed on more or less intuitive models of the relationships among soils; the development of the U.S. system of soil taxonomy was perhaps the most systematic and conscious effort along such lines.

Kinds of Models

Models may be classified into two broad groups: stochastic or statistical models and process or physical models.

In stochastic models, relationships among experimental observations are put into mathematical form through statistical techniques. Param-