SUMMARY

Five soils from Tobago were examined in the field, the laboratory, and under the microscope.

In order that microscopic investigation could be carried out, the soils were first impregnated with Castolite Liquid Casting Plastic, and then sectioned. The method used was adapted from previous techniques.

An attempt was made to bring a quantitative approach to the study of the thin sections. Thus particle analyses were made on each of the soils. A method was also devised to determine the orientation of the long axes of clay micelles within the soils and the results presented as orientation diagrams.

Microfabrics associated with the macrostructures of the soils were distinguished. In general erde fabrics were found to be associated with crumb structures, and lehm fabrics with angular blocky structures.

Factors influencing the development of these fabrics were considered, the emphasis being on the role of sesquioxides and oriented clay particles.

It is suggested that cutanic material may have a stabilising effect on peds, and this could be a factor in the development of the erde fabric. A development from erde to lehm fabric up the profile of the mature soils is envisaged and a mechanism contributing to this development is suggested. A sequence of laterization associated with the fabric development is noted.