

## SUMMARY

Six soil profiles from Gran Canaria island are studied, half of them are from the arid zone and the other half from the subhumid one.

Soil micromorphological and electron microscopy (normal dispersion and replica) techniques are applied. The work is complemented with S. E. M.

Very large fibers of sepiolite, grouped in bundles, are found in the clay fraction of the rotlehm sediments from the arid zone, this kind of form is not very frequent. Iron is observed in abundant microagglomerates of turite, accompanied by microgoethite.

The fibers form of the above mentioned sepiolite is not found in the clay fraction of the fossil rotlehm, instead of this we observe abundant material coming from the alteration of laminar minerals. Thin soil section shows porphyroskelic masepic fabric with weathered lithorelicts of diffuse edge belonging to the parent rock.

An intense hydromorphism is frequently observed in the subhumid zone. In fossil soils, the clay fraction contains fresh mica flakes and opaque minerals which present on the edge absorbed or transformation forms

The aim of this research work is to deepen in the application of the electron microscopy in the thin soil section, and to investigate the clay fraction of these soils.