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*cerroazulensis* Zone, lower rather than upper part. But in the Larger Foraminifera the hesitating appearance of such forms as *Helicocyclina paucispira* (BARKER & GRIMSDALE) and *Lepidocyclina subglobosa* NUTTALL expresses a tendency towards further phylogenetic development of the fauna, comparable to that in the highest unit of the Trinidad Upper Eocene where it merges into the Oligocene.

We are under the impression that the *Asterocyclina* marl is not simply the continuation of the sedimentary cycle of Beds 3 to 9. It rather looks as if not only Beds 10 and 11 form together one solid block, but that also the Southern part of Soldado Rock, composed of Beds 1 to 9, is a coherent block and that both these blocks, simultaneously but from different directions, have slumped into the quiet waters in which the *Asterocyclina* marl was being deposited. By then, Bed 9 must already have been sufficiently solidified to be included in the uplift and subsequent slump. This view would call for a slight local interruption in the sedimentation within the Late Eocene, a phenomenon that was not observed in Trinidad.

The general lack of coarse clastic material in the Soldado section and the widespread presence of glauconite are indications that the entire play of regressions and transgressions during the Paleocene and Eocene has taken place in an area of small steep-coasted islands and rocks. At the very beginning of the Middle Eocene the sea deposited limestone and glauconite banks around an island of Paleocene shell limestone which, in their turn, emerged at the next regression; during the great Late Eocene transgression the sea attacked this land of mixed Paleocene and Middle Eocene and covered it with several layers of marls and silts, after which the entire mass was uplifted to form a new island. Along its crumbling coast the *Asterocyclina* marl was formed around the big chunks of rock that had slumped back into the sea.

Finally, it should be kept in mind that the whole of Soldado Rock, including the *Asterocyclina* marl, is a rootless slipmass in the Miocene sediments of the bottom of the Gulf of Paria. This also applies to the disconnected rock ridges that emerge in its neighbourhood: Bed 12, which touches it, and the Pelican Rocks a little further South.

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### REFERENCES

For complete list of references see:

Part 2: "*The Larger Foraminifera*" (Eclogae geol. Helv., Nr. 68/3, 1975)