

5. DISCUSSION

Separate classification systems for each separate data scale as shown in Figure 2 would result in a number of purely hierarchical classification systems and a non-hierarchical component would not be needed. However, separate systems would not allow the cross-comparison of the categorised remotely sensed and ground data and this is the principal need of the BRIAN project (Jupp et al., 1981a, b; Kuchler, 1984).

A need for the comparability of data between individual reefs, and between the remotely sensed and ground data has resulted in a semi-hierarchically designed classification system.

A five-level classification system based on the ground data requirements and the resolution capability of the various types of imagery was constructed to enable comparisons between ground data and the aerial and orbital data acquisitions presently being utilised. The spatial resolution of the imagery and the abilities of the interpreter and field data collector determine whether the semi-hierarchical classification system presented here in Appendix II is utilised for its hierarchical and/or non-hierarchical components.

The "Reef cover and zonation classification system for use with remotely sensed Great Barrier Reef data" (Appendix IIb) does not include a classification of reef types. A classification of reef types is not an immediate requirement of the BRIAN Great Barrier Reef mapping project. The research involved in a classification of reef types would further delay the fulfilment of the immediate need by the BRIAN project for a classification of reef covers and zonation.

An extensive classification of reef types has already been provided by Maxwell (1968). Maxwell's (1968) classification of reef types for the GBR is summarised in Figure 3.

Figure 3. A classification of reefs (reproduced with permission from Maxwell, 1968).

