

## Comparison of Late Miocene evaporitic strata in Sicily and on the Ionian Islands (Greece)

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The substages of the Messinian formation — from base to top : Tripoli, "Calcare di base" gypsum and salt [MOTTURA, S., 1871; OGNIBEN L., 1957], overlain by "Trubi"-limestone of Early Pliocene age, were studied in outcrops of the major southwestern Sicilian Neogen basin between Scilotto in the west and Rosolini in the east, on the so-called Ragusa-" platform " [HEIMANN, K.O. & MASCLE, G.H., 1974].

The formation shows cyclic evaporation : Tripoli (t) occurs interbedded with sands (s) and marls (m) in rhythmic repetition (s-m-t- sequence or séquence mineure) at the base of nearly every evaporitic cycle, demonstrating the subtle equilibrium of evaporating brines. Such a cycle is completed by balatino and selenite to a major sequence (séquence majeure) [HEIMANN, K.O. & MASCLE, G.H., 1974]. In ideal cases it is topped by rock- and potash-salts (Monte della Salina near Cattolica Eraclea, or Pasquasia salt mine).

As "Tripoli" and 'Calcare di base' too (at least as fine-bedded limestone with sulfur films on the bedding planes) were encountered at the base of different evaporitic cycles in the same outcrop, they are considered as facies-markers, expressions better not to be used in the stratigraphical sense [HEIMANN, K.O. & MASCLE G.H., 1974].

The occurrence of 50-80 meters of marls in about the middle of the evaporitic formation does not justify in our opinion the subdivision into " Gessi inferiori and superiori " [SELLI R., 1960], each group comprising several cycles. An evaporitic cycle represents an unindpendant sedimentological event, not depending on the amount of underlying marls. Sometimes the above mentioned subdivision into " Gessi inferiori and superiori ", as for example described in the Eracles Minoa section [DECIMA, A. & WEZEL F.C., 1971 and 1973] is erraneous; the contact is a fault [HEIMANN, K.O. & MASCLE G.H., 1974].

The outcrops Agios Sostis and Kalamaki on Zakynthos [BRAUNE, K. & HEIMANN, K.O., 1973] and a composite section in Northern Corfu (Greece) [HEIMANN, K.O., JUNG, W. and BRAUNE, K., *in press*] are compared with the above mentioned Sicilian outcrops. Here too, evaporaiton (s-m-t - sequences, balatino and selenite) is documented by up to seven cycles, although evaporation did not always reach the selenitic stage.

The sequences encountered in Sicily as well as on the Ionian Islands represent near-shore - (littoral) and shelf-facies. Cyclic evaporation took place in basins with topographical highs and deeps accounting for local varieties of the formation.

Salt deposits as in Sicily are not known so far on the Ionian Islands.

An assemblage of a Messinian, typically mediterranean land-flora from northern corfiote outcrops is presented. The material comprises about 150 vegetable remains, 50 % of which permit a determination of genera and species. The well preserved shapes of the fossil plants exclude long drifting. Leaves, stems and little branches were found within the same layers.

The material recovered suggests as habitat of these plants an environment similar to PALAMAREVS [1967] " Praemacchie ". It corresponds to a group of geographical distribution called " jungtertiäres Trockenelement " by ANDREANSZKY [1963]. The equivalent would approximately be " xeroatlantic element of the late Tertiary ". Riparian vegetation taken apart, most of the individuals belong to the " hard-leaf "-group. This suggests precipitation not exceeding a maximum of 1000 mm p.y. (for further details see HEIMANN, K.O., JUNG, W. & BRAUNE, K., *in press*).

