

The digital organization of Marine Geological Data of Aegean Sea of Greece and the development of a Computer based Marine Information System from the available Marine Data Sets, helps for better understanding of the natural environments at all scales from local to global.

The reason for the creation of the Marine Information System of the Aegean Sea was:

- The urgent need for the better distribution of available data sets, coupled with improved data management facilities to enable more efficient access to the increasing volume of marine data.

- A requirement for data integration and compatibility, in an increasingly multidisciplinary environment.

- The correlation evaluation and interpretation of the existing data.

- The extraction of data in various combinations.

To create a Data Bank with high credibility, a "systematic validation" has been undertaken for the data collection according to generally accepted specifications.

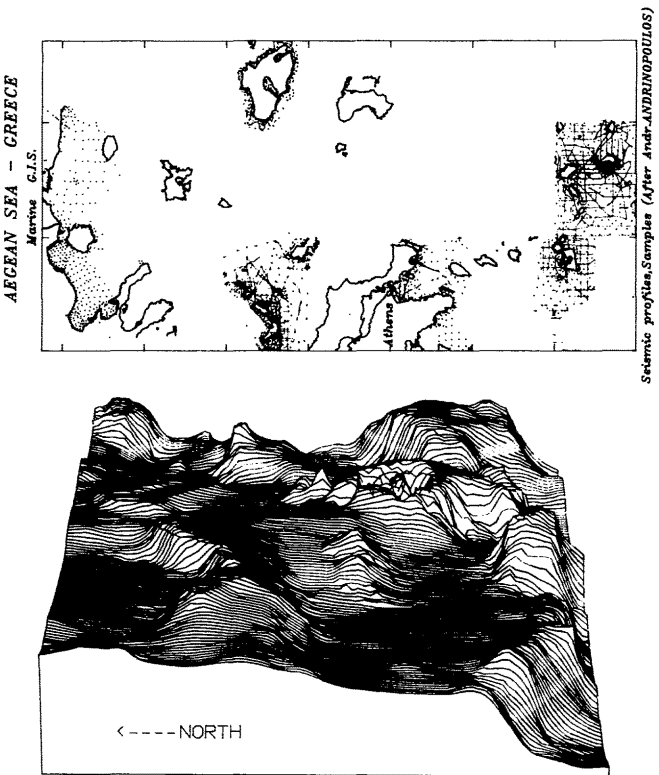
The collected data consist of the first Data Bank levels, which are created during the field-trip work on the ship. The second Data Bank levels are added to the first one and contains various data classified into groups.

The addition of Data Bank levels vertically and horizontally is one of the advantages. Vertical addition means entering new data which belong to the same group of the existing data or consists of new groups of data. At all the vertical levels there is a compatibility. Horizontal addition means the joining of the adjacent areas in which there are similar data available.

Maps can be produced showing all the available data and any correlations between them.

Other big advantages of the Marine Geological G.I.S. of the Aegean Sea are the possibility of evaluation and presentation of the different data for various windows at any scale, the creation of detailed bathymetric maps, accurate geostatistical evaluations and the construction of 3-D models.

It is also possible to development an expert system which will allow access to fully developed numerical models and the refinement of existing 3-D models to help investigation.



Bathymetry of Santorini sheet, developed from the Marine Geology G.I.S. for the Aegean Sea of Greece ( after A. Andrinoopoulos, 1992 )