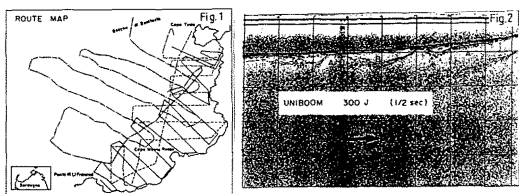


Morphology and Seismostratigraphy of The Proximal Shelf between Capo Testa and Punta di li Francesi (Northern Sardinia)
Preliminary results

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This paper presents the preliminary data extrapolated from the interpretation of S.B.P. (3.5 Khz) and Uniboom (300-500 J) profiles that were carried out during the Sardinia campaign 89/1 along that part of the Continental Shelf of Northern Sardinia stretching between Capo Testa and Punta di li Francesi (fig.1).



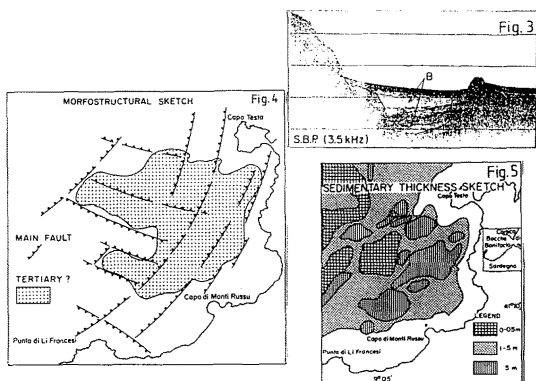
The emerged shoreline is characterized by different types of coherent rocks (granites and Hercynite metamorphites, Miocene-raised limestone which are also to be found on the Continental Shelf, as shown in the S.B.P and Uniboom profiles through the analysis of their reflections. The Paleozoic basement produces very bright, sometimes hyperbolic reflections, and has irregular surfaces with no inner reflections, called non-reflective-basement. Both S.B.P and Uniboom profiles show a sedimentary facies (most probably Miocene) that gives a non-reflective-basement type response to S.B.P, while Uniboom profiles generally reveal a weakening of the signals and at times, depending on the orientation of the lines, even a few internal reflectors, which makes it possible to recognise the structure of a stratified body in certain stretches (fig. 2-3).

Incoherent Quaternary-raised deposits are patently visible in S.B.P profiles while they only rarely exceed the signal length with Uniboom.

This method of analysis highlights the structural prisms and the sedimentary units (A and B). The Paleozoic basement of the submerged shoreline is characterised by the presence of local faults and fractures towards the NE-SW and NW-SE (fig.4). Because no sample of the sedimentary unit (which will be the object of future research campaigns) was available, its dating back to the Miocene can only be assumed at present, though there are numerous reasons supporting the assumption.

The Quaternary-raised units (Unit B) consist of seismically transparent sediments with proximal facies. Their location is parallel to the underlying regular surfaces while it is divergent on uneven surfaces. Width distribution depends on the morphology which is in a sense fossilized by this cover. Peaks and plains have only a thin superficial sediment film which tends to thicken in the incisions (fig.n 5).

These deposits form on average a 5-6 m thick layer upon the proximal shelf but become thicker offshore (cut-and-fill type relation).



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