



IV INTERNATIONAL SCIENTIFIC CONFERENCE
«MARINE RESEARCH AND EDUCATION:
(MARESEDU-2015)»

19-24 OCTOBER, 2015 - MOSCOW
Lomonosov Moscow State University

**LESSONS AND EXAMPLES FROM LONG-TERM AND MULTI-TOOLS
MARINE GEOLOGY/GEOPHYSICS RESEARCH PROGRAMS: THE
EQUATORIAL ATLANTIC TRANSFORM MARGIN AND
THE EASTERN MEDITERRANEAN SEA.**

A SHORT COURSE – MOSCOW 2015, 19-20 OCTOBER

PROF. DR. JEAN MASCLE

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Based on the examples of two, almost ten years each, programs conducted in the Equatorial Atlantic and in the Eastern Mediterranean Sea, this course is intending to stress the necessity to successively use, when available, various tools in order to progressively better image the geological and geophysical characteristics of specific continental margin segments to propose models of their creation and further evolution.

1)- In Equatorial Atlantic, a project, initiated in the early 80 and 1994 allowed to support an evolutionary model for transform margin evolution; the various surveys, conducted along the Côte d'Ivoire and Ghana margins, included standard bathymetry, swath bathymetry, dredging, coring MCS and refraction data acquisition as well as deep diving to support an ODP cruise (Leg ODP 159). So far the conceptual model derived from the data collected from these surveys is the only one available.

2)- In Eastern Mediterranean Sea a general project was conducted between 1995 and 2007 to better study and understand the various processes related to the overall convergence between Africa and Europe. The Mediterranean Ridge and the Nile deep fan were particularly studied. The construction of GIS documents allowed then synthesizing several maps illustrating the main characteristics of the studied areas. The compilation of these GIS maps has then been used to construct a composite map illustrating the main geophysical and geological characteristics of the whole Mediterranean Sea within its simplified onshore geological framework.

ABOUT LECTURER



Prof. Dr. Jean Mascle

Presently “Directeur de Recherches“ (Emeritus) at the Observatoire Océanologique de Villefranche-sur-Mer (OOV), Jean Mascle is a marine geologist, specialist of Continental Margin studies since the early 70.

He received all his degrees from Paris University, including, in 1975, his Science thesis degree (Doctorat es Sciences).

After few months as scientist in Brittany (at CNEXO now IFREMER), and almost two years in Toulon, (midship in the Hydrographic office of the French Navy, now SHOM), Jean Mascle moved for 3 years in USA (Woods Hole Oceanographic Institution; WHOI), where he started to study various segments of continental margin off Africa, particularly along the Equatorial regions, and where he defined the concept of “Transform Margin”. In 1973 he came back at CNEXO, in Brest, but as scientist from CNRS, the French National Research Center that he officially joined in 1972 when still at WHOI.

In late 1975 Jean Mascle moved to Villefranche-sur-Mer (Laboratoire de Géodynamique sous-marine), where he was successively scientist in charge to built and develop new research programs on the Mediterranean Sea, as well as on the Equatorial Atlantic, for a team specialized on Continental Margin studies. Director of the Laboratory from 1984 to 1996, Jean Mascle was appointed as director of the CNRS/Paris 6 University Continental Margin research group from 1988 to 1996. From 1996 to 2008 Jean Mascle has been in charge of Geomer, one of the four groups of Geosciences-Azur laboratory (now GeoAzur), including more than 30 marine geologists and geophysicists, technicians, engineers and PhD students, but was also initiating and conducting long-term research projects, particularly on the Eastern Mediterranean Sea deep Basins and Margins including the Nile area.

Jean Mascle has been one of the initiators (in 1999) of the French Continental Margin National Consortium (GDR Marges), task force from the Academy and Industry sides, for which he has successively acted as deputy director (1999-2003) and director (2003-2007).

Member of numerous French and international organizations, programs, panels and committees, Jean Mascle has conducted, as chief scientist, 22 scientific cruises (including two from the Ocean Drilling Program, legs ODP 107, in the Tyrrhenian sea, and 159, in the Equatorial Atlantic) and has participated to many others in various areas of the Atlantic, Indian and Pacific Oceans, particularly in the Mediterranean Sea.

Jean Mascle has won several prizes from CNRS (1978), Société Géologique de France (1988) and Institut Océanographique (2000). He has directed 21 PhD theses and is author, or co-author, of more than 280 scientific publications and several books including a recent one (2014) on the Nile continental Margin.