IN MEMORY OF PIETRO PASSERINI

Pietro Passerini was an important figure in Italian geology research of the second half of the 1900's, and left a vivid imprint also for his commitment in University politics. He was tenured professor of Geology at the University of Florence since 1972, then retired a few years ago.

Pietro Passerini was for many of us an important guide both from a scientific and personal point of view. To remember him is like to trace the development of various aspects of geological research in Florence.

In the 1960s, in Italy geology staff and students were mostly focussed on field work and mapping, to obtain a thorough detailed geologic map coverage of Italy. Pietro Passerini, a cunning observer and indefatigable hiker, climber (some of the climbing paths of the Apuan Alps were named after him) and mountain lover, was utterly fascinated by the challenges of field work.

The thorough exhaustive article and detailed map of the Cetona Mountain (Southern Tuscany) was his first comprehensive work that provided reference for decades to all geologists working in the area. Afterwards, he became interested in Eastern Liguria geology where, through acute thinking and field observations he set some basic milestones in understanding the genesis and stratigraphy and structure of ophiolites. First he recognized that the classic "Penrose model" for ophiolites as fragments of typical oceanic lithosphere (a layered sequence of mantle peridotites, gabbros, dykes, basalt extrusives) could not be applied directly to interpret the Apennine ophiolites. He noticed that above the mantle rocks and below the topping extrusive basalts there were sedimentary levels that testified the early exposure of ultramafic mantle rocks and gabbros on the Jurassic ocean floor. Pietro Passerini was also the one who discovered that part of the Ligurian ophiolites occurred as slided blocks within the Cretaceous Flysch successions. Ophiolites also posed other puzzling questions, like their scattered distribution on Earth, their apparent cyclical appearance in the geologic time scale at a worldwide level, and the regional geologic context in which they are found. Regarding all these topics, Pietro Passerini showed a twofold attitude: i) a strong motivation in pursuing the search for present-day analogues (e.g. small oceans, marginal basins, suprasubduction zones, etc.); ii) a firm, proud assessment of the differences and uncoherent characteristics of the Apennine ophiolites with respect to modern oceanic sequences.

Around the end of the 1980's and mostly during the 1990's, Pietro's interests shifted towards the analysis of brittle deformations and outcrop-scale fault systems. Also in this topic his innovative ideas questioned the common dogma that through a limited number of measurements and a suitable software we could reconstruct the deformative history of a region. In collaboration with Giovanni Sguazzoni, Pietro elaborated a method for collecting data, statistically analyze and interpret them, which was based on collecting hundreds of fault plane and striae orientation measurements. He applied his method to many various geologic situations, such as the Hercynian granites in the Alps, basalt lavas in Iceland and, lately, in the 1990's, the Afar depression in Eastern Africa. In this last region, classically considered typical for normal faults, his many measurements of fault planes with striae revealed the unexpected presence of an important transcurrent movement parallel to the Red Sea and to the western Afar margin. His data have been later utilized for drawing a new interpretation of the Afar Basin and adjacent regions.

Pietro's other multiple and varied interests also made him an active researcher on topics unrelated but not marginal with respect to the above studies. He was interested in sociology, particularly regarding the threat that technological progress and even the advancement in scientific knowledge poses to evolution in a biological sense. Following the thought of anticonformist sociologists, like Illich and Ellul, he feared that progress in knowledge could have turned into a manipulating instrument for controlling people by an intellectual aristocracy, a scientific apparatus of a technology-based society. Pietro developed and wrote these ideas in papers published on specialized international journals.

Scientific research as well as teaching activity were both pursued by Pietro with the same serious commitment and humble honesty and with a constant understatement attitude, with polite hyrony and criticism towards academic ideas.

Pietro, together with Valerio Bortolotti, had the idea of and founded, in 1974, an Italian Journal on ophiolites, to give voice to the 'Gruppo di Ricerca sulle Ofioliti Mediterranee', which was created one year before. It was Pietro with his unpretentious style, that wanted to name the Journal 'Il Giornalino delle Ofioliti' (the Ofioliti newsletter). From this sort of internal report by the 'Gruppo Ofioliti', in 1976 the current 'Ofioliti' Journal was born, that Pietro directed as Editor-in-chief for the first 5 years, and then passed to his co-founder Valerio Bortolotti.

Pietro's strong personality often led him to advocate extreme positions, although he always managed to support his beliefs with intelligence and courage and with unpredictable original hints, that very often fascinated and engaged his audience. Also for this we remember Pietro with great esteem and affection and we greatly miss him.

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