MARCO MATERAZZI

(RU – S.S.D. GEO/04 – School of Environmental Sciences – University of Camerino)

- Born in Camerino (ITALY) on October 3rd, 1968
- Bachelor degree (cum laude) in Geological Science at the University of Camerino in 1992. Title of thesis: "Petrographic and sedimentological characteristics of travertines in the upper Esino river basin", tutor Prof. Francesco Dramis.
- PhD fellowship (3 years, 1993-1995) on "Applied Geology, Geomorphology and Hydrogeology" at the University of Perugia (Italy). Title of thesis: "Freshwater travertines in the Umbria-Marche Apennine: genesis, evolution and chronology" tutor Prof. Francesco Dramis..
- Post-doctorate fellowship (2 years) on applied geomorphology (1997-1998) at the University of Camerino (Italy).
- Since June 1st, 1999 - Researcher at the School of Environmental Sciences of the University of Camerino (Italy).
- He is the Author of more that 60 scientific publications on national and international journals and thematic volumes, other than numerous publications of geomorphological mapping.
- Reviewer for the following international journals:
    - Quaternary Science Reviews
    - Quaternary Research
    - Natural Hazards and Earth System Sciences
    - Engineering, Hydro, Environmental Geology
- Member of the CERG (European Centre on Geomorphological Hazardes) with headquarters in Strasbourg, at the Council of Europe.
- Member of the AIGEO (Italian Association of Physical Geography and Geomorphology).

Scientific activity (sinthetic)

The scientific activity mainly deals on quaternary geomorphological dynamics and geological risks (particularly in the adriatic sector of central Italy) and on landscape transformation triggered by human activity.

Among the analyzed processes, particular attention has been devoted to the study of deep and superficial mass movements and to activation and control factors of fast erosion and linear processes (badlands); of such processes, geological and geomorphological conceptual and numerical models have been defined. At the same time, correlations with anthropization and fluvial dynamics of the area have been established. Results evidenced the role played by recent and present human activity on hydrographic networks of adriatic central Italy and its consequences on physical landscape and more in particular on the fluvial-coastal ones.

In the field of applied and environmental hydrogeology he has coordinated (and he is still responsible for) numerous projects and contracts (listed below) on topics related to the characterization, quantification and protection of groundwater resources and to the hydro-geological risk connected to public works and infrastructures.

Mainly professional assignements

- Consultant in 1997 for the "Geoequipe" of Tolentino (MC) in the framework of the assignement "Geological investigations for the PPAR adaptation (LR n ° 26/87) of the planning instruments of the Municipalities of *Camporotondo di Fiastrone, Cessapalombo, Gualdo, Monte San Martino and Penna San Giovanni, located within the Comunità Montana Zona "L" of San Ginesio (Prov. di Macerata) territory*".
- Professional Geologist (1997-1999) in the framework of the CARG-Lazio Project for the geomorphological survey at 1:50,000 scale of the Anagni area, in collaboration with ITALECO S.p.a. IRITECNA, IRI-Group.
- Scientific coordinator (1998-1999) of field surveys and data processing for negli anni 1998-1999, for the editing of thematic maps (geomorphological, hydrogeological, hydrogeological risk and vulnerability to pollution of the aquifers) of the Regional Park of Gola della Rossa and Frasassi.

- Professional Geologist (1999-2000) in the framework of the Project "*Cartografia Geologica e Geomorfologica, Ob.5b, (D.G.R. n.1029 del 3.5.1999")* of the Marche region for the geomorphological survey at 1: 10,000 scale of numerous areas of the Marchean territory.
- Professional Geologist (2000) in the framework of the Project "*Rilievo critico del reticolo idrografico minore")* for the geomorphological survey at 1: 10,000 scale of numerous areas of the Marchean territory.
- Component (2002-2007) of Research Units in the framework of n.3 National Research Project (PRIN) on topics related to soil erosion in Mediterranean environment (EROMED I, EROMED II, EROMED III). Scientific Coordinator: Prof. Giuliano Rodolfi.
- Scientific coordinator in 2005 of a contract between ATO3 Marche-Centro Macerata and University of Camerino for the study of the "*Present and future groundwater resources availability in the ATO3 territory; identification of well-heads and springs protection areas*"
- Scientific coordinator in 2006 of the hydrogeological study in the framework of the contract between ITALFERR and University of Camerino for the '"*Geological and hydrogeological studies supporting the speeding up project of the Roma-Pescara railway*"
- Component in 2008 of a Research Unit in the framework of the National Research Project (PRIN) on the topic "The pocket beaches of the central-southern Adriatic: morphosedimentary evolultion and dynamics". Scientific Coordinator: Prof. Enzo Pranzini.
- Scientific coordinator in 2010 of a contract between ATO3 Marche-Centro Macerata and University of Camerino for the study of the "*Identification of superficial and groundwater protection areas in the ATO3 territory* "
- Scientific coordinator in 2011 of a contract between ATO4 Marche-Centro-Sud, Alto Piceno Maceratese and University of Camerino for the study of the "*Identification of superficial and groundwater protection areas in the ATO4 territory* "
- Scientific coordinator in 2011 of a contract between ATO5 Marche-Sud, Ascoli Piceno and University of Camerino for the study of the "*Identification of superficial and groundwater protection areas in the ATO5 territory* "

- Scientific coordinator in 2012 of a contract between the Municipality of Serrapetrona and the University of Camerino for a "*Quantitative evaluation of groundwater resources in the territory of the Serrapetrona municipality*".

Scientific publications (2007-2012)

1) ARINGOLI D., BUCCOLINI M., MATERAZZI M., FARABOLLINI P., GENTILI B., PAMBIANCHI G, SCIARRA N. In corso di stampa/deposito Large landslides in sea-cliff areas of the central Adriatic coast (Italy). Roma: 3-7 October 2011, Roma,
2) ARINGOLI D., GENTILI B., MATERAZZI M., PAMBIANCHI G., SCIARRA N. In corso di stampa/deposito Deep-seated slope deformation induced by post glacial decompression in central Apennine (Italy). Roma: 3-9 October 2011, Roma,
3) BUCCOLINI M, MATERAZZI M, ARINGOLI D, GENTILI B, PAMBIANCHI G, SCARCIGLIA F. (In corso di stampa/deposito). Geomorphological evolution in a clayey small catchment of central Italy during the last 15,000 years. GEOMORPHOLOGY (ISSN:0169-555X),
4) FARABOLLINI P., ARINGOLI D., MATERAZZI M., PAMBIANCHI G., PIERANTONI P., SCALELLA G., TONDI E. (2012). Il terremoto aquilano del 6 aprile 2009: rilievi geologici, geologici del Quaternario, geomorfologici di superficie e considerazioni per la prevenzione del rischio sismico e per la ricostruzione post-terremoto. GEOLOGIA TECNICA & AMBIENTALE (ISSN:1722-0025), p. 58 - 74 vol: 2012;
5) ARINGOLI D, GENTILI B, MATERAZZI M., PAMBIANCHI G. (2010). Deep seated gravitational slope deformations in active tectonics areas of the Umbria-Marche Apennine (central Italy). GEOGRAFIA FISICA E DINAMICA QUATERNARIA (ISSN:0391-9838), p. 127 - 140 vol: 33;
6) ARINGOLI D, GENTILI B, MATERAZZI M, PAMBIANCHI G. 2010 Mass movement in adriatic central Italy: activation and evolutive control factors.. In: Werner E.D. et al.. Landslides: Causes, Types and Effects. Nova Science Publishers, New York: p. 1 - 71,
7) MATERAZZI M., GENTILI B, ARINGOLI D, FARABOLLINI P, PAMBIANCHI G. (2010). Elements of slope and fluvial dynamics as evidence of late Holocene climatic fluctuations in the central Adriatic sector, Italy. GEOGRAFIA FISICA E DINAMICA QUATERNARIA (ISSN:0391-9838), p. 193 - 204 vol: 33;

8) BUCCOLINI M, GENTILI B, MATERAZZI M, PIACENTINI T (2010). Late quaternary geomorphological evolution and erosion rates in the clayey peri-Adriatic belt (central Italy).. GEOMORPHOLOGY (ISSN:0169-555X), p. 145 - 161 vol: 116;
9) ARINGOLI D, FARABOLLINI P, GENTILI B, MATERAZZI M., PAMBIANCHI G. (2010). Examples of geoparks and geoconservation strategies from the Southern Umbro-Marchean Apennines (central Italy).. GEOACTA (ISSN:1721-8039), p. 153 - 166 vol: 3;
10) ANGILERI S., AUCELLI P.P.C., BUCCOLINI M., CONFORTI M., CONOSCENTI C., DEL MONTE M., FORLEO M.B., MARINO D., MARUCCI A., MATERAZZI M., ROSSKOPF C.M., VERGARI F. 2010 An integrated geomorphologic-economic approach for valuing direct damage in agricultural areas caused by erosion processes in Mediterranean environment (Italy). In: Chalov RS, Chernysh AF. Water erosion: slope processes and matter movement. Faculty of Geography - LMSU, Moscow: p. 15 - 17,
11) AGNESI V., ARINGOLI D., BUCCOLINI M., CAPPADONIA C., DELLA SETA M., DEL MONTE M., DI MAGGIO C., FAZZINI M., MATERAZZI M., PAMBIANCHI G. 2010 Geomorphological evolution and soil erosion rate in two clayey small catchments of central and island Italy during the last 15,000 years. In: Chalov R.S., Chernysh A.F.. Slope processes and Matter Movement. Faculty of Geography - LMSU, Moscow: p. 10 - 15,
12) ARINGOLI D., CAPPADONIA C., CONOSCENTI C., DELLA SETA M., DEL MONTE M., MATERAZZI M., ROTIGLIANO E., VERGARI F. 2010 Two geostatistical approaches for assessing landslide susceptibility in Italian Apennines.. In: Chalov RS, Chernysh AF. Slope Processes and Matter Movement. Faculty of Geography - LMSU, Moscow: p. 18 - 22,
13) FARABOLLINI P; ARINGOLI D; MATERAZZI M; (2009). The Neolithic site of Maddalena di Muccia (Umbria-Marche Apennine): a tip to reconstruct the geomorphological evolution and human occupation during the Late Pleistocene and the Holocene. JOURNAL OF ARCHAEOLOGICAL SCIENCE (ISSN:0305-4403), p. 1800 - 1806 vol: 36;
14) ARINGOLI D, FARABOLLINI P, GENTILI B, MATERAZZI M, PAMBIANCHI G. 2009 Geomorphological evidences of natural disasters in the

Roman archaeological site of Carsulae (Tiber basin-central Italy).. In: De Dapper M., Vermeulen F., Deprez S. and Taelman D.. Ol' Man River: Geoarchaeological Aspects of Rivers and Rivers Plains. Academia Press, Ghent: p. 5 - 20,

15) FARABOLLINI P; MATERAZZI M; MICCADEI E; PIACENTINI T 2009 Freshwater travertines deposition in central Italy: a contribution to the geomorphological evolution of the Apennines. In: IAG - International Associations of Geomorphologists. Proceedings of the 27th IAS Meeting of Sedimentologists. Medimond s.r.l., BOLOGNA: p. 11 - 17,
16) CILLA G.; DRAMIS F. FUBELLI G.; MATERAZZI M. 2008 Holocene travertine deposition and human settlement in the limestone valleys of the Marchean Apennine (central Italy). Koregos ion, Atene: p. 11 - 13, 18-21 June 2008, Porto Heli Grecia,
17) MATERAZZI M, PAMBIANCHI G. (2008). Acqua e sviluppo sostenibile: un progetto comune tra scienza e societÃ . DA (ISSN:null), p. 50 - 53 vol: XXI;
18) FARABOLLINI P; ARINGOLI D; GENTILI B; MATERAZZI M; PAMBIANCHI G. (2008). Processi di approfondimento dell'erosione in alveo ed effetti dell'inquinamento nei fiumi delle Marche centro-meridionali (Italia centrale). IL QUATERNARIO (ISSN:0394-3356), p. 317 - 329 vol: 21;
19) ARINGOLI D, FARABOLLINI P, GENTILI B, MATERAZZI M, PAMBIANCHI G. (2007). Climatic influence on slope dynamics and shoreline variations: examples from Marche region (central Italy).. PHYSIO-GEO (ISSN:1958-573X), p. 1 - 20 vol: I;
20) BUCCOLINI M, GENTILI B, MATERAZZI M, ARINGOLI D, PAMBIANCHI G, PIACENTINI T. (2007). Human impact and slope dynamics evolutionary trends in the monoclinal relief of Adriatic area of central Italy.. CATENA (ISSN:0341-8162), p. 96 - 109 vol: 71;