

# ENVIRONMENTAL GEOGRAPHY: FROM FIELD OBSERVATIONS TO MAPPING, FROM PROCESSES TO RISK MANAGEMENT. A TRIBUTE TO PROF. MONIQUE FORT (UNIVERSITY OF PARIS-DIDEROT)

GILLES ARNAUD-FASSETTA (\*) & ETIENNE COSSART (\*\*)

## Introduction to the special issue

### PREDISPOSING BACKGROUND

Monique Fort (Darlu's wife) was born on April 6, 1947 in Troyes (200 km East of Paris, France). As a member of a large family, she has four brothers and one sister, in which the «work ethic» had always been shared with an acute sense of organisation, M. Fort was not predestined to «Geography». She was rather caught between her passion for philosophy and her childhood dreams marked by the talents of her grandfather, who was a cabinetmaker. What choice did she make? Would she engage in the footsteps of her father, attracted by the model of «big companies», or would she open her own, more personal way? A regular reading of her favourite book, an atlas, probably helped her decide...

### TRIGGERING FACTORS

From the start Monique has been a passionate of mountaineering and climbing, from the Pyrenees to the Alps, in Fontainebleau as well. Finally, the contact with «rocks» and «altitude» led her to start studying Physical Geography. M. Fort is «Agréguée de Géographie» (1970, fig. 1), and holds two theses on the Himalayas, one in Quaternary geology [Ph.D. in 1977, supervisor Georges Lucas, University Pierre & Marie Curie (Paris 6)], the other in geography («*Doctorat d'État*» in 1993), under the supervision of Olivier Dollfus [University of Paris-Diderot (Paris 7)],

who was one of her mentors. Three other colleagues from the Department of Geography of the University of Paris 7 were very important for her and played a major scientific role: Yvette Dewolf, Fernand Joly and François Durand-Dastès. In this Department, field-mapping techniques were particularly developed, and during many trainings and fieldwork sessions, she learnt how to transcribe field ob-



FIG. 1 - 1971 class at the EPHE Laboratory (Dinard, France). Monique Fort appears second from the left. The photograph was taken one year after she passed her «agrégation de géographie».

(\*) Université Paris-Diderot (Paris 7), UMR 8586 du CNRS-PRODIG, France. E-mail: gilles.arnaud-fassetta@univ-paris-diderot.fr

(\*\*) Université Panthéon-Sorbonne (Paris 1), UMR 8586 du CNRS-PRODIG, France. E-mail: etienne.cossart@univ-paris1.fr

servations into simple patterns, and then into maps. When O. Dollfus offered the Himalayan topic to her in 1973, M. Fort had to give up her research on the mapping of karst landforms in Quercy (a former French province located in the southwestern part of the country), and the master studies initiated with Y. Dewolf. This choice however corresponds to the crucial moment when M. Fort began a scientific adventure in Nepal that still remained a very remote area, and where field investigations required tough work and significant perseverance. At that time, she also committed to international research on mountainous environments: since the 1970s she had been in touch with Nepalese, Indian, German, French, British and American colleagues to fruitfully discuss the geomorphology of the Himalayas.

## AN INTERNATIONAL ISSUE

Monique Fort has been a professor of geography at the University of Paris-Diderot (Paris 7) since 1994, and a member of the PRODIG Laboratory (UMR 8586 CNRS «*Pôle de Recherche pour l'Organisation et la Diffusion de l'Information Géographique*») since 1997. She widely developed the «mountain» theme everywhere throughout the world, but especially in both Himalaya (fig. 2) and Pamir mountains (Nepal, India, Pakistan, Tajikistan, Tibet). Her expertise also concerns the French Alps and the Southern Hills of France. M. Fort has also worked in Indonesia, Brazil, Mexico, and Turkey. Her research topics are the setting of mountain reliefs, palaeoenvironments reconstruction, current morphodynamic processes in mountain environments, and flood hazards and risks. In all study areas, she has developed her accurate sense of observation on the field, a sense of observation that can also be exhibited through her numerous and beautiful pho-



FIG. 2 - Monique Fort, Gilles Arnaud-Fassetta, and Étienne Cossart during the Nepal Mission 2007-2008. Initiating young university fellows and passing down knowledge about the environment dynamics in the Himalayas.

tographs. Her precise observations and analyses were always transcribed into patterns and sketches, until she succeeded in raising synthetic models of the geomorphic functioning of the study areas. She has authored almost 150 scientific papers, several essays and she is the author or co-author of 50 books (see Section «Some reference papers» below) in a list which keeps growing.

Unlike some academic career profiles built on the «Bottom-Up» model whereby one makes one's career at the University and then tries to give it some international dimension a few years before retirement, M. Fort's has been international from the outset, and she has passed her experience down according to the «Top-Down» model at the scale of France, University of Paris 7 and PRODIG Laboratory. Her mastery of the English language helped her a lot (between 1983 and 1984, she was a visiting professor in the Department of Earth Sciences, Dartmouth College, Hanover, USA). Her administrative and scientific responsibilities were numerous – it is impossible to mention them all, just the most significant ones – and allowed her to manage different research and academic networks. On the international level, she was the vice-president of the International Association of Geomorphologists (IAG), a member of the IGU (International Geographical Union) Commission «Diversity in Mountain Systems», a member of the IGU Commission «Mountain Geoecology and Resource Management», and a member of the PIGC 415 «Quaternary Glaciation in Central Asia and its Influence on the Hydrographical Network».

In France, she was a member of the National Committee for the National Centre for Scientific Research (CoCNRS, Geography section) and for the Universities (CNU; Geography section), a member, then the vice-president and finally the president of the French Group of Geomorphology (GFG), which she is still today, a member of the Scientific Committee of the French Alpine Club, a member of the French INQUA section, and a member and the secretary of the French Commission «Periglacial features» of the French Committee of Geography. At the University of Paris 7, M. Fort was a member of the University Scientific Council, the head of the Dynmiris («*Dynamique des Milieux et Risques*») Research Team of the PRODIG Laboratory. In whatever position she held, she tried to promote geomorphology, the significant role of physical geography in the current world issues, and always worked to help colleagues to progress in their research. Additionally, while many scientists neglected teaching activities, M. Fort was significantly involved in teaching of physical geography, integrating the most recent scientific advances in her enthusiastic courses. She was the head of the Master EDMR («*Espace, Dynamique des Milieux et Risques*»), from which many Ph.D. students and lecturers began sound research on geomorphology and physical geography. During all these years at the University of Paris 7, M. Fort has continued to expand the «Dewolf/Joly» legacy (*i.e.*, courses, lab, field internships) to her fellow lecturers in physical geography and to her students (fig. 3), especially by interacting with recent improvements of geomatics and hydraulics to provide more accurate quantification from field observations.

FIG. 3 - Monique Fort during the 2012 internship field (undergraduate level) of the University of Paris-Diderot in the French Southern Alps (Col des Douaniers, Chenaillet Massif). The passion for field research passed down to students.



This career, as brilliant as it is, would not have had much flavour to her if she had not been surrounded by a strong emotional environment built on three major actors, her husband, Pierre, and their two children, Juliette (26 years old) and Clément (23 years old).

#### THE «TRIBUTE»

A «Tribute» issue is for each participant a rather personal tribute to a valued teacher and researcher. It is therefore difficult to classify the various contributions according to «academic» plans. The framework of this tribute devoted to Prof. Monique Fort could equally well be «thematic» (processes, methods and tools, risk management), «geographic» (mountains / foothills / plateaus / plains / coastal, or upstream / downstream part of catchments), «temporal» (ancient / recent), «multi-scalar» (regional / local)... We have therefore chosen to list the seventeen contributions simply in alphabetical order.

We warmly thank our Italian colleagues, editors of the international journal *Geografia Fisica e Dinamica Quaternaria* (Paolo Roberto Federici, Editor in Chief, Adriano Ribolini, Assistant, Mauro Soldati, member of Editorial Board), without whom this issue would not have been possible. Twenty-two reviewers were willing to assess and improve articles to achieve the greatest scientific and formal quality: Gilles Arnaud-Fassetta (University of Paris 7, France), Laurent Astrade (University of Savoie, France), Achim A. Beylich (Geological Survey of Norway, Trondheim, Norway), Tony Brown (University of Southampton, UK), Dov Corenblit (University of Clermont-Ferrand 2, France), Etienne Cossart (University of Paris 1, France), Armelle Decaulne (University of Clermont-Ferrand 2, France), Philip Deline (University of Savoie, France), Christopher Esposito (University of New Orleans, USA), Alessandro Fontana (University of Padua, Italy), Jean-François Gleyze (Ecole des Ponts et Chaussées, Paris, France), Francisco Gutiérrez (University of Zaragoza, Spain), Yannick Lageat (University of Bretagne Occidentale, France), Christophe Lambiel

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All colleagues know that their work has been greatly appreciated. The goal was to pay tribute to Monique Fort between her retirement (31 August 2012) and the 8th IAG International Conference on Geomorphology (27-31 August 2013) and we got there! However, we know that «retirement» is a word that misfits M. Fort's behaviour, as she will still be involved in many scientific programs (Samco Anr for instance), participation of field courses, and co-organisation of the IAG Conference in Paris.

May our colleague Monique (fig. 4) satisfy all her passions symbolised in the «Mountain / Family / Research» triptych for a long time.



FIG. 4 - Monique Fort visiting the Swiss Alps (2007). The independent traveller.

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