C. R. Geoscience 348 (2016) 3–4

Contents lists available at ScienceDirect

Comptes Rendus Geoscience

www.sciencedirect.com

Editorial

English / French

In memory of Jean-François Stéphan

This thematic issue of *Comptes rendus Geoscience* has been assembled to honor the memory of our late colleague and friend Jean-François Stéphan, whose remarkable scientific and community-directed activity has left a deep imprint on both the French and the International Earth Science communities. This volume brings together contributions of colleagues of Jean-François who were also close friends. Naturally, tectonics is the common theme of these contributions. Some of the papers presented here focus on tectonic questions and/or regions Jean-François worked on during his career; other papers present studies Jean-François motivated or encouraged in one way or another. Taken together, the papers of this thematic issue take the reader on a beautiful trip, from past to current tectonics.

A former student in Argenteuil, Jean-François discovers geology when he integrates the "École normale d'instituteurs de Versailles" in 1964. There, he starts reading geological books and papers, admires the collections of the Museum, and discovers the geology of the Paris Basin. While a grant student in the "Classes préparatoires aux grandes écoles" of the "Lycée Chaptal", he feels seduced by the first modern geological movie *Du Pelvoux au Viso*. He brilliantly passes the exams and enters the "École normale supérieure de Saint-Cloud" (ENS Saint-Cloud), the exact same day Armstrong and Aldrin step on the Moon. From then on, remarkable successes punctuate his journey to a great career ("CAPES", "agrégation", etc.). At the ENS, he meets several of those who will become his best friends: Marc Tardy, Christian Beck, Jean Chorowicz, Bernard Mercier de Lépinay, Michel Faure, Philippe Charvis, and I. He is also profoundly impressed by the courses of Professor Jean Aubouin; during all his career, Jean-François will remember everything he learnt from him, his scientific approach, his impressive talent to tell the mountains' stories, his outstanding skill to sketch geological features. Jean-François will become equally talented. His meeting with J. Aubouin and his way of practicing geology marks the birth of his deep, constant passion for geology and tectonics.

Jean-François' first steps take him to the Venetian Alps, as a PhD student. He spends months and months in the field, collecting observations, performing measurements, and eventually deciphering the mysteries of this complex tectonic area where superimposed structures and complicated strike-slip zones interact. A few years later, he discovers the first satellite ERTS pictures of the Earth and the Mariner 9 spatial images of Mars. Jean-François immediately understands that these images open tremendous new opportunities to study in a comparative way the tectonics of not only Earth but also the Planets. Driven by this objective, he spends a few years at the GDTA of Toulouse, then moves as a post-doctoral researcher at the Center of Astrogeology of the USGS, Flagstaff, Arizona. There, he starts working on the Viking and Mariner 10 space missions. From these years, Jean-François will retain a profound passion for astronomy and planetology.

In 1975, Jean-François Stéphan lays the first stone of an impressive research program he will be carrying over his entire career: the geology and tectonics of the Caribbean Region. With Christian Beck, he is at that time the pioneer of a unique and great geological adventure in Venezuela. To live this adventure and conduct his scientific work, he decides to settle in Venezuela with his family. He will stay there for three years, with the status of "civil expert". During these years, he launches the first geological cooperation program between the Venezuelan Energy and Resources Ministry, petroleum companies and universities. He also prepares his "Thèse d'État" (DSc) on the tectonics of the "transversale de Barquisimeto" in the South Caribbean chain. His long, meticulous and thorough work yields fundamental results, such as the discovery that the contact between the Caribbean and the Andean chains is a large thrust zone, not a stratigraphic unconformity, as was commonly thought. He also describes, for the first time, the most likely tectonic evolution of the region over the last 50 millions of years. He then expands his work into the oceanic domain, now collaborating with colleagues and friends Marc Tardy, Bernard Mercier de Lépinay, Éric

http://dx.doi.org/10.1016/j.crte.2015.11.001

Calais, and others. In that framework, he participates in the Glomar Challenger Leg 66 in the Central America trench. This combination of onshore and offshore studies, which, at the time, is an extremely innovative approach, allows him to decipher the tectonic relations between the Greater and the Lesser Antilles, the formation history of the Muertos accretion prism, the interconnections between shortening, "transpression" and "transtension" along the northern and the southern Caribbean faulted edges.

Jean-François Stéphan then decides to pursue and promote his innovative approach combining onshore and offshore tectonics. Driven by this objective, he moves to the GIS "Océanologie et Géodynamique" in Brest, France, at a time when I was its director; the group's originality is to be a "mixed" laboratory where researchers from CNRS, CNEXO, ORSTOM, and BRGM work together. As soon as he joins the Brest laboratory, Jean-François becomes the driving force of a new important international research program on the tectonics of the West Pacific. On land, in Taiwan, he revisits the evolution of the collision between the Chinese Margin and the Luzon Arc and proposes a precise chronology of the tectonic deformations. With Claude Rangin, he focuses on the Philippines and describes the tectonic and geodynamic evolution of the Luzon Arc. During marine campaigns, he explores and describes the offshore domain between the Manila and the Ryu-Kyu trenches. Multiple landmark results are obtained over these years of work in the West Pacific.

In 1989, Jean-François is promoted "Directeur de recherche", then Professor at the University of Nice. He then starts working on the Southern French Alps, Caucasus, Siberia, collision zones, in collaboration with Marc Sosson, Alexandre Chemenda, Christophe Larroque, Étienne Ruellan, Olivier Laurent, and others. In 1996, he markedly contributes to the creation of a new laboratory: Géoazur (at that time named "Géosciences Azur"). From then on, Jean-François will always spend a significant part of his time and efforts to make Géoazur one of the best French laboratories in Earth Sciences. In particular, he markedly contributes to attract highly skilled young and senior researchers. He also teaches a lot, and trains tens of Master and PhD students. Jean-François excels at teaching and communicating his passion for tectonics, geodynamics and Earth and Planetary sciences to every student he meets. As a proof of his success, most of his former students are today academic researchers or employees in petroleum or mining companies.

A few years after his arrival in Nice, Jean-François decides to devote even more of his time to his colleagues and to the Earth Science community. He accepts to assume important responsibilities at the local scale (University of Nice), then at the national level: Jean-François heads several important committees such as the CNU, and on the international scene he becomes a driving force of several cooperation programs. In 2006, he is appointed Scientific Director of the Earth and Universe Department of the French Education and Research Ministry. In 2010, he is appointed Director of the CNRS National Institute of Universe Sciences (INSU). There, he guides the national scientific strategy and manages the numerous national research laboratories. His work is brilliant and highly appreciated because Jean-François has the rare capacity of managing his colleagues while knowing almost each of them and respecting all of them. Jean-François is not only a great scientist; he also has a great sense of humanity, responsibility, and respect. During his term, Jean-François devotes his efforts to best organize the Universe Sciences in France. He creates or reorganizes "Earth and Universe Observatories" at different strategic sites in France so as to develop an organized, operating a national network dedicated to observations, from data collection to their international distribution. He also creates a number of National "Alliances", groups of experts mandated to guide the national strategy for Earth and Universe Sciences. Meanwhile, he promotes the development and functioning of the numerous small research teams that form the core of a large network of national laboratories and institutions.

Jean-François devoted his time, energy, knowledge, and humanity to our community, to make it stronger and increasingly present on the European and International scenes until the day when he left us, on 21 December 2013. We all owe him a great debt of gratitude.

I personally would like to thank the editors and the authors who have built this volume as a tribute to Jean-François. He was my colleague and my friend. He also was a top-level researcher, receiving awards from the French Academy of Sciences and CNRS, a pioneer in his actions and scientific findings, a brilliant teacher who generated a school, a manager dedicated to helping his community and encouraging academic research, a man with a deep sense of humour and joy in life, for whom elevation was a natural obligation, driven by work, merit, intellectual rigor, intelligence, and accompanied by simplicity, respect, loyalty, and exceptional human qualities.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.crte.2015.11.001.

Member of the French Academy of Sciences
René Blanchet,
E-mail address: rene.blanchet@free.fr

Available online 2 January 2016