Memorial to Josep-Maria Fontboté i Mussolas 1921–1989

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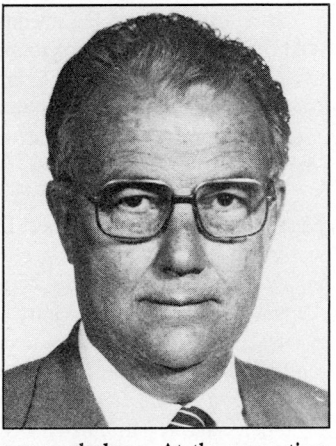

An eminent personality in Spanish geology, Josep-Maria Fontboté, died peacefully in his sleep September 13, 1989, at his home at Sant Boi de Llobregat, near Barcelona. He was the best known Spanish geologist of his time outside his own country, and he also played an important role within Spain.

He was born on June 8, 1921, in Barcelona, but lived for a long period in Andalusia. The end of his secondary school education and his enrollment at the Catalan University coincided with the end of the Spanish Civil War (1936–1939), and because of his youth he escaped the horrors of war. He was just 17 years old when the troops of General Franco entered Barcelona in January 1939.

Between 1939 and 1943 he prepared the "Licenciatura" (M.S.) in natural sciences. In 1943 he was an assistant, and in 1948 assistant professor at the laboratory directed by Professor Solé Sabarís, who introduced him to geomorphology. At the same time Josep increased his knowledge in his preferred disciplines of tectonics and petrology at foreign universities: in Belgium with Professors Fourmarier and P. Michot, and in Switzerland with Professor Wegmann. Thus, it was with a solid foundation that he started his Ph.D. thesis, on the Paleozoic axial zone of the Catalan Pyrenees, in the headwaters of the Ter River.

In 1961, Josep married his student colleague in geography, Montserrat Rubió i Lois, daughter of the illustrious humanist Jordi Rubió. During their life together, Montserrat gave him her full support and organized a harmonious home in which culture had an important place.

In February 1954, Fontboté was appointed full professor and chairman of the physical geography and applied geology departments at the University of Granada. This was an important promotion, and it was not without certain problems. The department consisted of two staff members occupying a few empty rooms with high walls located in an old cloister, which, at this time, held part of the University of Granada. Financial resources were almost nonexistent. With patient determination, Fonboté ultimately achieved the task of transforming this backwater into one of the principal geological centers of Spain. He was strongly encouraged by Paul Fallot, a professor at the Collège de France (Paris), who, as an old friend of Spain, also helped to provide him with support from the scientific authorities in Madrid.

In 1957, Fontboté was able to create a geology section at Granada, which complemented existing departments at the Universities of Madrid and Barcelona as centers of geological study in Spain. Granada was a favorable place for this purpose because numerous foreign geologists went to the area to study the continuation of the Alpine belt of southern Spain. Through the hospitality and coordinated efforts of Fontboté, geological groups from Paris, Amsterdam, and Bonn came into friendly contact with each other and also with his first students.

Because of his openness, Fontboté introduced a breath of fresh air into the geological scene, first in Granada and subsequently throughout the entire country. Spain, until then ostracized by the western democracies, was slowly emerging from 20 years of isolation. Fontboté's excellent knowledge of French, English, and German, as well as Catalan and Spanish, helped him establish these contacts.

Over a period of 25 years, he shared his time between several major tasks. First, he brought together a team of high-quality teachers, most recruited from among his first students, who graduated in 1961. He also visited numerous geological institutions in different parts of Europe, both west and east, as well as in North America. These included Yale University, where he was the guest of John Rodgers, and Calgary. He used these trips to walk and study at first hand numerous Alpine and Hercynian fold belts.

Josep also developed an interest in economic geology, acting as consultant for various hydrocarbon and mineral exploration companies. Completely ecumenical, he favored the development of all disciplines in Granada, without exception. Thus, he encouraged the training of paleontologists by his long-time colleague Asunción Linares, of petrologists by Encarnación Puga, of tectonists like F. Aldaya and V. García-Dueñas, and of stratigraphers by J. A. Vera. Later Fontboté had the pleasure of seeing Vera as the first president of the Geological Society of Spain.

During his quarter century at the University of Granada, he raised the geology program to the same level as that of the best European universities.

In the new campus of Fuentenueva, the geological sciences department, now much diversified, was installed in modern, large, and well-equipped quarters. Acting as an ambassador of his country, Fontboté helped to introduce the Spanish geological community to the whole of Europe as well as to North America, and earned the friendship and esteem of numerous outstanding geologists in these countries. In collaboration with the foreign groups and with the increasing participation of the Granada team, Fontboté assisted in popularizing the magnificent Alpine Betic belt, and in particular the Sierra Nevada, the huge mass of which he was able to observe and appreciate every day from both his home and his office.

Although open to the rest of Spain and the world, Fontboté was, at heart, always a Catalan. Nearing his sixtieth year, he became professor at the University of Barcelona, where he took over the geomorphology and tectonics chair from his teacher, recently retired, Solé Sabarís. His arrival in Barcelona contributed to achieving the calm and dedication necessary to generate an environment favorable for scientific research. During this time he worked mainly on the Catalan Pyrenees and the Balearic Islands, and under his direction and that of his younger colleague, Pere Santanach, the Barcelona group contributed greatly to international efforts leading to a better knowledge of this Pyrenean belt. He played a major role in the incorporation of geophysics into the research group in order to interpret the seismic results of the Spanish–French cooperative project ECORS.

At the same time, Fontboté accepted the post of vice-rector of research. Over a period of six years his recognized authority contributed to the difficult task of changing the old structures into new democratic systems. A year before retirement, he was unanimously elected chief of the new geodynamics department.

His Andalusian contacts were never broken. Every year he led an excursion there with his students and some colleagues. At an international symposium organized in Barcelona in his honor (April 1988), Andalusian and Catalan colleagues joined in discussing tectonics of the Betics and Pyrenees. Following his retirement in October 1988, he was made emeritus professor at the Catalan University of Barcelona.

Fontboté's professional life was marked by many international awards: Fellow of the Geological Society of America (1979), honorary member and then foreign vice-president of the Société Géologique de France, Membre Correspondant of the Société Géologique de Belgique, member of the Academia de Ciencias of Barcelona, as well as Madrid and Granada, an honorary doctorate from Toulouse University (1983), Médaille d'Or of the University of Liège. He was also a member of numerous other societies and commissions, where his voice was heard with respect. He was leading the Spanish part of the Synthese Geologique des Pyrénées program at the time of his death.

Fontboté was an eclectic man. He could use and harmonize subjects and concepts usually considered opposite. A Catalan at heart, he was nevertheless a faithful representative of Spain and of his geological community. Well acquainted with the French, Germanic, and Anglo-Saxon cultures, this European "avant la lettre" was really a forerunner of the world citizen.

Professor Oriol Riba, Fontboté's friend and colleague at the University of Barcelona, described him as a man of peace, moderate in his views and actions, who detested conflicts and did all in his power to resolve them. He was constructive and knew how to bring people together and to organize their work infrastructures. He was a man who gave inspiration, wrote thoughtfully, read avidly, and knew how to transmit orally what he had seen and learned. He recognized the positive changes that were taking place in earth sciences. As early as the 1950s, he was a firm supporter of a hypothesis based on overthrust nappes in the Betic Cordillera, an interpretation about which certain of his colleagues had substantial doubts. In the 1970s he recognized the future of the new global tectonics, but he did not accept it uncritically.

Josep was a large man, solidly built, with an agreeable and harmonious disposition. An apparently serious and reserved "northern" exterior hid the friendly Mediterranean type that his students and friends perceived. He loved the fine arts, music in particular, and had a very wide range of interests. He was also a faithful and loyal friend. He left numerous disciples dispersed throughout the Spanish universities and companies.

Josep is survived by his wife, Montserrat Rubió; two sons, Lluís, professor economic geology at the University of Geneva (Switzerland), and Jordí, an architect; and his daughter Montserrat, who graduated from the Barcelona Medical School.

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