

A personal tribute to Pierre Valiron: scientist, thinker, man

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Abstract. Pierre Valiron was “a great scientist, a great thinker, a great man”, prematurely taken away from us. His spirit lives, and his legacy, both scientific and personal, is still with us.

As you heard from Claudine Kahane, Pierre has been one of the “founding fathers” of LAOG, when he moved in 1981 from Bordeaux. At that time, a little group of about a dozen researchers was formed, following the creation of IRAM, and grew rapidly to become LAOG –a much smaller lab at that time than it is today... As has been true during his whole scientific life, Pierre rapidly demonstrated that he was both a scientific pioneer and a visionary. But he was more than that: his passion for science did not blind him, and he pursued a personal quest to put science in a broader context. He thought that, as a human activity, the role of science in society, its relationship with different ways of understanding the world, like religion or philosophy, has to be questioned. We now have a particularly vivid proof of this quest with the book “Chercheurs en science, chercheurs de sens”¹ (“In search of science, in search of meaning”) he recently wrote with Philippe Deterre, biologist and catholic priest, which has been published posthumously. Had he lived longer, he might have repeated this experience as a result of numerous discussions with another colleague, who happens to be a buddhist.

Yet he was not a proselyte, and he never wanted to force his opinions on colleagues and friends –two synonyms for many of us. He did have strong convictions, especially on science and the way it is conducted, even at a national level. When I arrived in Grenoble in 2003, he already had a high reputation and held several positions where he thought he could influence the course of things: among others, adviser to the Vice-President for Research of the Université Joseph-Fourier, and deputy Director of the Grenoble Observatory (OSUG). Yet, as a new structure of LAOG was discussed and adopted, leading to the creation of the “Astromol” team (“Molecular Astrophysics”), he stepped down. He argued that this was the opportunity to give the responsibility of “Astromol” to new people, and Cecilia Ceccarelli was an obvious choice. Through its rather unique combination of theoreticians, observers, and modelers involved in problems of the interstellar medium and star formation, and through the senior scientific and culinary (!) guidance of Pierre, “Astromol” developed a true family atmosphere. We all remember those weekly lunch meetings at which he would bring delicious “foie gras” from time to time, to compensate for the poor food provided at some international meeting we would have attended previously... It is fair to say that Astromol would never have existed without him.

But Pierre also had other visions of the field of astrochemistry. Although a true theoretician, familiar with difficult equations, Pierre invested himself in the tools to achieve his goals, namely computer science and programming. But his approach was not individual. On the contrary, he thought from the outset that the modern approach has to be collective, through networks, of machines as well as people. He developed this approach with massively parallel computers in national structures which he contributed decisively to create, or with specialized “PC farms” (or “PC factories”) of a hundred units

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¹ P. Valiron & Ph. Deterre: Editions de l'Atelier, Ivry-sur-Seine, 2009, 128 p., 16 Euros

or so, which he designed himself –with a soldering iron in hand if need be– serving a more limited number of teams working in entirely different fields of research.

On a daily basis, his mind was constantly alert, testing new ideas on anyone he would cross in the corridor, or asking “naive” questions which could embarrass the most senior seminar speakers. He was unanimously recognized as a “Master of quantum chemistry”, whom many people consulted. He never left a question without answer, even if that meant months of theoretical developments and computing. His intellectual rigor and unfailing honesty gave him a unparalleled competence and oversight. Again, modesty prevailed constantly; he was always responsive and available to people, not only colleagues, and always put as a high priority to solve organizational and personal problems in a positive way, and to keep in mind the need for the common good, either within the lab, or in the professional union he was a member of.

We also remember his indomitable courage when illness struck him. Throughout his ordeal, he continued to be active in science, as much as he could. When we visited him at the hospital or at his home when he was forced to rest, after a quick exchange of news about him and his family he always asked news about science, about the lab, about Astromol’s projects and students. The real moment of relief for us came when he took some vacations with his wife Odile to ski –he was also an experienced skier and loved hiking in the mountains–, only to break his left leg. Then we thought he had *really* recovered ! Unfortunately, all medical and personal efforts were eventually defeated, after one difficult year of struggle.

For all those who had the privilege to know him, even like me over a too short period of time of only five years, he was simply “a great scientist, a great thinker, a great man”, prematurely taken away from us. His spirit lives, and his legacy, both scientific and personal, is still with us.