

The Genius Jean-Claude Raynal

*"Let's be aware what a catastrophe has befallen us. No eye has excuse not to pour forth tears"**

When I first came to Laboratoire de physique theorique et hautes energies in Orsay, 40 years ago, my experience was in the lengthy and tedious calculations of Quantum Electro Dynamics. I wanted to learn something new. So I joined the Orsay Quarkist Quartet:

Luis Oliver

Olivier Pene

Alain Le Yaouanc

Jean-Claude Raynal

They all welcomed me to ask any questions if I had any queries. At that time, Jean-Claude was about to finish his thesis for the "doctorat d'Etat". The other three were already doctors. I used to ask one of the three as I thought what gain would I get from this beginner.

Until one day, I had a question and there was no one to ask in the lab but Jean-Claude. So I asked him. As soon as I finished my question, he immediately gave me a thorough exhaustive complete exact answer. It happened that my question was in abstract mathematics, as I remember, (Distributions, Generalized Functions, ...) Usually, those who excel in abstract mathematics don't tolerate calculations and only take care of rigor on the theoretical level and don't like to bother themselves with the details of calculations. So I decided that Jean-Claude would be poor in computation maneuvers.

On a second instance, I was in need of discussing some calculations, I hesitatingly asked him. Again, as soon as I finished my question, he directly & surprisingly answered via manipulations that occurred to no one. He used a theorem which I didn't know. When I asked him about it, he answered with a shy smile as if he had committed a crime, "I proved this theorem myself and it is not published anywhere." Because he masters all this mathematics, I secretly assumed that he wouldn't know anything about physics because for a "normal human-being" there would be no room in his mind to absorb anything else.

On a third incidence, while passing by, I heard him explaining some physics to someone. The explanation sounded so beautiful to me as if I was hearing a magnificent piece of music. I decided then that if you are close to Jean-Claude, you will have no problems -if any- because all you have to do is to ask Jean-Claude and he will give you an immediate accurate answer.

** Abou Tammam (9th Century) A classic Arab Poet (Iraq). Translated by Ahdaf Soueif*

A couple of years later, Olivier Pene came to Cairo University, Faculty of Science, as a visiting professor. We went to Cairo Airport to pick up his wife. While we were waiting for her, we started chatting and Jean-Claude's name

came up in the conversation. Olivier said, "Without the three of us, Jean-Claude wouldn't publish anything." I was astonished at hearing this because I knew how highly Olivier appreciated Jean-Claude. But I didn't interrupt him or even comment. Olivier continued, "more than once in our weekly meetings to discuss our joint work in the Orsay Lab, one of the three of us would say that there was one point that needed extra time & effort that still remained to finish the project. Jean-Claude would reply that he had already thought about that point and solved it. So we took his ready finished solutions and finished the paper."

Pene admirably explained, "In Jean-Claude's apartment there were a lot of note-books full of results by Jean-Claude. But he wasn't interested in publishing them."

On the human level, it is enough to say that Jean-Claude was as great as he was in science.

A whole book on Jean-Claude would not pay him his due.

It is extremely hard to use the verb "was" when speaking about Jean-Claude. What a big loss!

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