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Photography and Science

My Father, Erwin Blumenfeld, was a photographer.
My wife, Kathleen Blumenfeld was a photographer.
I was an experimental elementary particle physicist,
I took thousands of particle photos, in cloud chambers and Bubble chambers.
More than my father and Kathleen combined.

My father started photography at the age of ten
But he became a professional at age 35.
Kathleen worked for my father as a commercial agent,
She became a photographer, after we had been married a few years, at age 35.
My father had an experimental streak, he took all kind of photos, in addition to paintings, drawings, collages.
You can see some of his work at the Jeu de Paume,
till 26 January. After that you will have to go to Moscow.
My father's reputation was mostly in Fashion Photography
But he took many portraits of important people.
Writers like Paul Valery and François Mauriac
Painters like George Rouault or Henri Matisse
Sculptors like Jacques Lipshitz or John Raedeker
Musicians like Bruno Walter or Fritz Reiner
Business leaders like François Dalle, Oreal boss, or Elisabeth Arden.
And many film stars like Marlene Dietrich and Grace Kelly
Making this list I discovered some absences
No athletes, no politicians
And to my great surprise, not a single scientist.

That gap was filled in by Kathleen with a vengeance.
She took many portraits of politicians
Like Pierre Mendes France or François Mitterand
And she took more than a hundred of photos of Scientist, mostly Physicists.

Like Murray Gell-Mann or Philip Anderson
And of course three French stars
George Charpak, Pierre-Gilles de Gennes, Alfred Kastler.
I helped her finding many physicist
But a great help was also Norma Sanchez
thanks to the Chalonge Conferences at Erice
and at the Observatoire de Paris
I shall not list all the physicists that Kathleen photographed.
Let me just mention a few from Erice that made a great impression on me
And provided some beautiful portraits
Subrahmanyan Chandrasekhar, a Nobel Prize winner and a very great personality. He wrote an important book on Black Holes. I also can recommend a wonderful book he wrote towards the end of his life; Newton's Principia for the common reader, making Principia intelligible to the common physicist.
John Archibald Wheeler, no Nobel Prize, but a founder of modern astrophysics and a very kind person.
Bruno Pontecorvo, no Nobel Prize,
but a great source of inspiration
for experimental particle physicists
(as Jack Steinberger told me not long ago).

I did not always help Katheen find physicists. Living in Gif sur Yvette we have a large "Bassin de Retenue" near by, were she often went for a walk with our dog Blacky. One day she told me that she had met a very charming man and his wife, who greatly admired Blacky. She thought he might be a physicist. I asked if she got his name :some thing like Alfred Kastler she said. We became good friends.

It did not do, to just take great photos of physicist.
They also had to be sold to magazines.
Kathleen, as well as my father, had a special relation with Vogue, and its art director, Alex Lieberman.
Vogue is not a magazine specially devoted to science.
But Kathleen managed to persuade them to publish the photos of a number of physicists:
Freeman Dyson, a very versatile mind
Gerald O'Neill, the initiator of colliding beam storage rings Tom Styx, an outstanding plasma fusion expert.
Her special coup was a photo of both Carlo Rubbia

and Simon Van Der Meer in profile, one behind the other.
that was published a few days before the Nobel Prize
to both in 1984.
The content of Vogue is usually fixed two months before publication.
So that was a great scoop, except that the Vogue editor had decided to cut out Simon Van der Meer.

For the occasion Kathleen had persuaded Vogue
To let me write an article about the W boson and its discovery, and the standard model.
Only, when the editor saw my table of the standard model, the three families of two quarks and two leptons, which I compared to the Mendeleev table from atomic physics
That was too much, too much science for Vogue.
That was more than they could stomach. They only kept the first line of my article.
They could accept abstruse modern art or poetry
But not modern Science.

I would like to add that the Mendeleev table
Was proposed in 1865.
It was understood in 1925 by Wolfgang Pauli, 60 years later,
Thanks to the revolution caused by the invention of Quantum Mechanics, and the exclusion principle.
The standard model table, much simpler than the periodic table, having just 3 families of two quarks and two leptons, should now be taught in High School
But when will it be understood?
Despite the wonderful recent establishment of the Higgs mechanism, giving masses to particles
One has no inkling about the theory behind the actual values of the quark and lepton masses,
No inkling about the origin of the triplet structure of the quarks and leptons, though it may be of primordial importance.
Much remains to be discovered and understood.
Will it require a new quantum mechanics?
But the portraits of great physicists will remain.

And still many thanks to Norma Sanchez who greatly enhanced Kahleen’s gallery of important physicists.