Zeitschrift: Helvetica Physica Acta
Band: 62 (1989)
Heft: 2-3

Artikel: Philippe Choquard : a biographical sketch
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DOI: https://doi.org/10.5169/seals-116032

PHILIPPE CHOQUARD: A BIOGRAPHICAL SKETCH

In January 1989, the yearly event of the "Rencontres" in Mathematical Physics of our colleagues at ETH, Zurich, is being organized at the sister institution in Lausanne in order to celebrate Professor Philippe Choquard's sixtieth birthday. This somewhat precocious happening, Philippe's true birthday being on 23 of May, is very much in his spirit since, although being a physicist by training, "la mathématique" that is, mathematics in the broader sense of a natural philosophy, has been close to Philippe's heart since his highschool days back in Porrentruy where he was an unconditional disciple of Professor Herbert Jobin, his mathematics teacher.

Porrentruy, the provincial town situated where Switzerland intrudes into France, closer to Belfort than to Basle or Bienne, in the heart of the Ajoie with its jovial and "bon enfant" inhabitants, produced Philippe Choquard and marked his character. Grandfather Choquard came from France to make beer in Porrentruy but he also became a Swiss councillor; and Philippe's mother came from France. Deeply devoted to the catholic faith and intellectual, she brought the artistic element into the family: The Cuttat's, Jean and Paul-Albert (Tristan Solier) the poets and Pablo the painter, are Philippe's cousins, and his beloved sister Françoise is herself a noted imaginative writer. And of course, "la mathématique" also is an art...

Physics, on the other hand came almost as an accident. At highschool, Philippe disliked his physics teacher. And after registering in the mechanical-engineering section of ETH in the autumn of 1947 it took him little time to find out that producing taps on the drawing board was not what he had been looking for and quickly changed to the Mathematics and Physics section. That's where "la mathématique" was and, as he soon discovered, theoretical physics was very much part of it. So Philippe stayed, and gradually he came under the spell of the great Pauli. He got his diploma in theoretical physics in autumn 1951.

Pauli had just lectured on Feynman's path-integral method, so when he suggested to Philippe to explore this new method further in more general non-relativistic examples, Philippe started to work for a doctor's thesis under the friendly and competent guidance of Pauli's assistants, first Robert Schafroth, then Armin Thellung. This work was interrupted by Philippe's military service which he had postponed as long as he could. Coming back to ETH, Pauli observed "Ja, ja, beim Militär wird man gesund und dumm". Nevertheless, in December 1953 already, Philippe got his doctor's degree. There was a dinner celebating the event for which Philippe's father, the veterinarian, came to Zurich and met Pauli. "Mais professeur, quelles sont vos recherches, vos objectifs?" he asked the great man who, according to family recollections, answered rather enigmatically...

But life had not been that simple for Philippe, although as a cheerful, round-faced boy he enjoyed being the pride of his parents and the good-natured playmate of his sister Françoise who is two years his elder: When he was 11, his mother died after a long illness, only 40 years old, leaving a family of four children - of the other two sisters one was much older and one much younger than Philippe - and the big family house in the hands of Justine, the tyrannous servant "au grand coeur". Father François compensated the loss as best he could. He took Philippe to explore the Ajoie on horseback and let him participate

in races; for, he was an accomplished horseman and even kept racehorses. But Philippe's help was also required in the harvest of hey and potatoes, particularly important because it was war time, and also in the frequent visits of the veterinarian to the farmers.

Later when Philippe worked for his ph.d. with little financial support from his father - the racehorses were expensive - Philippe was looking for a job but to his consternation he found out that in this task his degree did not mean much. After a short episode as gas station attendant he succeeded to get an assistantship, first at the electrotechnical institute of ETH and then with Professor André Mercier at the theoretisches Seminar of the University of Berne.

It was André Mercier who guided Philippe to his career as a physicist by mentioning the newly founded research institute Battelle in Geneva. Although he had an invitation by Walter Kohn in Pittsburgh, Philippe who did not wish to contribute to the brain drain from Switzerland, entered Battelle in April 1954 and stayed for 14 years. He was the first theoretical physicist appointed by this institute, by then just 25 years old. Philippe started to work on different projects in applied physics, but in particular in the field of the thermal and transport properties of crystal lattices, a subject which has captured Philippe's interest ever since and which in 1967 gave rise to his monograph "The Anharmonic Crystal". About at that time, between 1964 and 1968, Philippe whose book quite impressed me, also participated in my research seminar on this subject at Geneva University.

Geneva very quickly became "le port d' attache" for Philippe since it was there that in 1955 he married Nicole Sierro, the blonde Valaisanne whose "cavalier d'honneur" he had been at the wedding of one of his cousins with her sister, four years back in Sion. Nicole had been a student of psychology in Professor Jean Piaget's institute at Geneva University. But soon she had more urgent things to do since in 1957 the first daughter, Florence, was born and Valérie and Nathalie followed in 1959 and 1962.

But besides his research work, Philippe developped an important managerial activity, collaborating closely with Battelle's director Hugo Thiemann and founding in 1957, with the help of Professor Beno Eckmann from ETH, a research group in Mathematics - "la mathématique"! - and Solid State Theory. The first members of this group were Aloisio Janner, Joseph Hersch and Edgar Ascher who for a long time shared one office with Philippe. In selecting these and many other collaborators, Philippe showed a remarkable psychological talent and intuition; "généreux et chaleureux par intermittance" was Ascher and Janner's private characterization of their colleague.

In 1964 Battelle's president Dr.B.D. Thomas and the famous John Bardeen from the University of Illinois at Urbana joined to offer Philippe a sabbatical year as visiting professor at Bardeen's institute. While at Geneva, Professor L. Jansen took over the direction of the theory group, Philippe could devote all his time to research and to the teaching of a graduate course on lattice dynamics which became the core of the mentioned monograph. This year at Urbana was very important for Philippe; it gave him the taste of an academic career so that when he came back to Battelle, his managerial ambitions had vaned. But Urbana acquired another importance since in 1964 it became the birth-place of the Choquard's fourth daughter, Noële l'américaine.

Back in Geneva the good times at Battelle continued for several years but, due

to interferences between the US and the Geneva managements of Battelle, the climate in the Geneva branch gradually deteriorated. Philippe who in 1960 had become a private docent at Lausanne University and between 1965 and 1967 was invited to give a graduate course on solid state physics in the "3ème Cycle Romand" was now seriously looking for an academic position. It was fortunate that in October 1968 he got a professorship at EPUL, the engineering school of Lausanne University, for, just one year later this school was transformed into a federal institution on the same level as ETH in Zurich, the EPFL.

Being a professor of one of the most prestigious institutions of Swiss Academia, Philippe could now freely develop his talents and tastes in research, teaching and mangement. One of the more difficult managerial tasks was the transfer to Lausanne of his family for which Geneva was definitely "le port d'attache". He allured them with a superb appartment in the center of town where the Choquard's still live today, generously inviting friends, collegues and Philippe's ph.d. students. Much would have to be said still about Philippe's career, the fact that it was he who in 1969 created the Laboratoire de Physique Théorique at EPFL, that 1977-1979 he was president of the Swiss Physical Society and in 1988 became member of the executive committee of the European Physical Society, that he published many important papers, mainly on the statistical mechanics of lattices and mathematical models...

But these facts belong to the better-known things about you, Philippe, since, after all, you are well-known. So let me, with a glance back to the many times when our paths crossed, just tell you: it was good. Be it that way for you in the years to come!

Charles P. Enz

(Abridged version of an address given at the dinner in honour of Professor Choquard on 20 January 1989.)