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REMEMBERING PROFESSOR K. KODAIRA*

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I first met Professor Kodaira in September of 1953 when I started graduate work at Princeton. It was in the organization meeting of the famous "nothing seminar" which was run by Kodaira and Spencer, to discuss a variety of recent developments in complex analysis and in geometry. There was a sense of excitement at this seminar. The main topic of discussion was the theory of deformations which was then being developed by them; it is hard for me to do justice to the frontier spirit engendered by their work. This spirit is described by Kodaira in the preface to his book on deformations of complex structures (Springer-Verlag, 1981):

"In order to clarify this mystery , Spencer and I developed the theory of deformations of compact complex manifolds. The process of the development was the most interesting experience in my whole mathematical life. It was similar to an experimental science developed by the interaction between experiments (examination of examples) and theory. In this book I have tried to reproduce this interesting experience; however I could not fully convey it. Such an experience may be a passing phenomenon which cannot be reproduced."

I also was fortunate to attend Kodaira's course on the subject. Even though the course was way above my head it served as a wonderful introduction to: the theory of several complex variables, differential geometry, algebraic geometry, and the theory of elliptic partial differential equations. Kodaira's lectures were marvelous. Each was like a work of art. The theory was perfectly balanced with examples, digressions and historical remarks. I have never seen such remarkable blackboard technique. The formulas, diagrams and writing in perfect harmony every symbol and index of just the right shape and size. Somehow the beauty and depth of the content of the lectures was matched by the esthetics of the presentation. After moving to Japan Kodaira wrote a series of texts which are known for their extraordinary exposition.

In the summer of 1966 I participated in the Taniguchi Symposium on Lake Biwa and also in a conference in Kyoto. This was the first time in seventeen years that Professor Kodaira had returned to Japan. He was well known by the general public in Japan and newspaper reporters covered his return. D. C. Spencer and I had the privilege to accompany Kodaira when he was welcomed in Japan. Professor Akizuki was in charge and Kodaira and (by association) we were given the royal treatment. There were banquets, tea ceremonies, temples, theater, music etc. It was very moving to see a culture that puts such a high value on intellectual achievements.

To conclude these remarks I will present a few "snapshots" that are engraved in my memory of Professor Kodaira.

On several occasions I sat next to Kodaira in the back seat of a car while Spencer was driving and an out of town guest sat next to him in the front. Invariably a mathematical discussion would start between Kodaira and Spencer. As it got more involved Spencer would turn around to face Kodaira while driving full speed ahead.

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The guest and I would become very apprehensive, to say the least, while both Kodaira and Spencer were oblivious to any danger. Miraculously nothing ever happened so, as usual, Kodaira and Spencer were right there was nothing to worry about. Once I asked Professor Kodaira whether he knew how to drive, he thought for a moment and then answered: "Yes, but only in theory."

Professor Kodaira loved classical western music and played it beautifully on the piano. I believe that I heard him play only once but both the music and Kodaira's demeanor left an unforgettable impression.

Whenever someone would ask Professor Kodaira a question, which showed that the questioner did not understand the subject, Kodaira would concentrate very hard. Then, with infinite patience, he would formulate an answer which would clear up the questioner's difficulties. I was fortunate to be the enlightened questioner several occasions. I remember once at a conference (I think in Williamstown) Kodaira's daughters came running up to him. They were saying: "Oh come on daddy" sounding like typical American teenagers. Evidently Mrs. Kodaira had told them that they were not allowed to go out and they were appealing this decision. Kodaira sat down and had the same look of hard concentration as when dealing with the uninformed questioner.

In conclusion, to summarize my memories of Kodaira. He was passionately dedicated, in a very quiet, way to: research, teaching and his family. He enjoyed classical music, good food and especially the beauty of mathematics. The combination of his special human qualities with his stellar mathematical talent and production is very rare.