September 11, 1978

Dear Bill,

Thanks for the cheque and especially the cards. I am teased by your allusion. Were you thinking of yourself or of me? If of me, as a walker or as a mathematician? Reviewing the poem does not help and I cannot make the sentence "all neglect monuments of unageing intellect" rhyme with my notions of your views. Giving up I thumb through the poems, with which I was once quite familiar, and find many lines that seem to refer to my present state. "while I must work because I am old, and the seed of the fire gets feeble and cold" is perhaps the starkest.

Anyhow I enjoyed the walk very much, loved Wales, and have a great desire to return. But I had spent far too much time away from Charlotte during the spring and summer, and it was best to come home.

I am still not working seriously, and have continued to play about in a childish way with algebraic varieties. As you know, I don't expect to do anything, except perhaps to come to understand better the nature of the problem. I ask simple little questions, and sometimes answer them, but they are not the right ones.

It may be poor strategy to turn to geometry when so many positions in the Shimura variety and trace formula fronts are waiting to be taken, but the military metaphor is inapt. There is a great deal to be done with the trace formula and with Shimura varieties, not easily, but there is much more in the offing than most people realize. Using global methods, Bruhat-Tits buildings, and unstable orbital integrals, there is a great deal to be learned about the principle of functoriality for the $^LH \to {}^LG$ situation discussed by Diana and by me in "Stable Conjugacy". But others understand these things better than I. Besides they can wait if necessary. Meanwhile there is that geometrical mountain sitting in the distance. What is a motive? How general are those defined by Shimura varieties? Not very, I suppose. How does one pass from a motive of general type to an automorphic representation? Mustn't we at least think of these questions? The comparison I thought of making in Helsinki, but thought better of, for it was too pretentious, and perhaps even immodest, although I hope you will see that it has another side, was with the early explorers of North America—La Salle and La Vérendrye, down by the sheer size of the land, premature in their ambition, overreaching, doomed to failure, and to death in obscurity and poverty or in a god-forsaken swamp. On second thought, it is very pretentious and immodest to think that any of us academics are cast in this heroic mold, with the exception perhaps of Harish-Chandra, but it's fun to indulge in extravagant fancies.

I have started to read Klein's "Die Entwicklung der Mathematik..." I intend to read only Part I, but I am not sure that I will even get through it. It is pretty thin, and a better educated person would probably find it useless. Weil, for example, has never deigned to read it. After the first 100 pages I am left with an uneasiness—about Gauss. Is the disproportion between him and other 19th-century mathematicians so great? It corresponds to nothing I have seen with my own eyes. The others are of 20th century size, but he seems not to be. Is it

a myth? Probably not, but I would like to be sure—and am also left with a curiosity—about Jacobi, and Poncelet, who seems to have had the same notions as we about the projective geometry of lines and conics, but entirely free of algebra. How does he see the rulings on an ellipsoid without it? Klein does not go into this.

Enough nonsense. Unfortunately my epistolary hand seems to be rather heavy, and my brain sluggish.

Yours
Bob

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