

July 24, 1974

Dr. William L. Brown
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Dear Bill,

My sincere apologies for this delay in reporting to you on my efforts to comply with your request that I comment on the race relations given in the manuscript (Brown and Goodman) that arrived here seven weeks ago. To give you a comprehensive reply requires intimate knowledge on my part of knob constitutions of individually named races that are considered in the various maize reports and that are included in your text and relatedly grouped in the figures. This I could handle readily for the U.S., Mexico, and Central America races, because I have spent months in an effort to make relationships evident. Although I am oriented with regard to introductions and to migration paths for maize of the Caribbean Islands, Venezuela, and Eastern and Western South America, I have not brought this information to bear on individual races in these areas with a few exceptions of those races whose knob compositions are so striking as to readily reveal origins of their germ plasms. Examples of these races are Pisinkalla, Perola, Canguil, Araguító, Pira, Chococoño, along with a few others.

I had hoped that Blumenschein would make the integrations for Caribbean and South American races as these were made for races in other parts of the Americas. The means and methods for doing this were thoroughly discussed with him during our long meeting in Mexico City in 1972. (The February 1973 meeting was cancelled just ten hours before my scheduled flight to Mexico City! That's a story and I am still angry.) To date, his contributions are incomplete, inadequate, and in some respects unacceptable. Because of this, and because I do not expect any further contribution from him, I am obliged to undertake some of the basic analyses myself. This requires working with his raw data, most of which I had received earlier, and remaking a number of knob distribution maps because an uncomfortable number of those that he furnished to me in Call and to Wellhausen later, unchanged, were incomplete or so inaccurate as to be deceptive. Again, on critical maps, a race name must be placed adjacent to each recorded item or adjacent to those critically revealing ones on other maps. Considering the number of knob types recorded and the number of races examined, this is a formidable task for me, which I commenced with the South American material of Blumenschein only after receiving your manuscript.

Because your manuscript considers the content of the report of Grobman et al., I found it necessary to tabulate Grobman's statements on knob constitutions of races he discusses in this report. This, too, was a disconcerting task as his mode of recording knob locations, sizes, and numbers was sloppy and in some

instances obviously inaccurate. Nevertheless, in some instances, I can read the trends peering through these sloppy recordings; and pleasantly, some of them fit nicely with expectations based on knowledge of knob constitutions of races located in adjacent countries and also on his ear photographs which, in many instances, are supportive of my conjectures.

Right now I am still immersed in the integrative processes and on all fronts. It will take me some time to surface. Thus, at this time I do feel that I should not send you a short, incomplete report. Neither do I feel confident that an abbreviated report would suffice. Summaries were sent to you early in February 1973 of (1) paths of migration of selected knob complexes, (2) the basic knob composition of Tuxpeño, its migration paths and secondary germplasm modifications that occurred either after introductions into new locations or during migrations. Also (3) several other summaries, including the projected origins of the Venezuelan complex and the Mayan maize origins and migrations, were included. I am not sure just how effective such summaries could be for you or for others. In them, nevertheless, I tried to give direct references to the obvious evidence appearing on knob distributions maps previously supplied by Kato, a set of which you received. Possibly this method is not sufficiently emphatic or it rings too few bells. Believing this may be the case, I now hesitate to make brief comments on race associations that are projected in your text and figures. Rest assured, however, that I consider most of them on which I am competent to comment to be accurately related or to approach adequacy given the knowledge now available.

I should mention, at least, that I could add pertinent information on the germplasm composition and the influence of the races Nal-Tei, Harinoso de Ocho, Chapalote, Reventador, Zapalote, Pepitilla, Bolita, and some others. You may wish to know of this eventually. Also, I am confident that we know something of the relationships to other races of some that appear in your Table 1. Examples are: Maiz Dulce, the Sonora races Dulcillo, Cristilino, Blando, and Onaveño, and the western South American races Uchima, Gallina, Cholito, Rabo de Zorro, Jora, and Chloçero as well as a few others in the list.

Incorporated in my thinking and in a general way are the data collected by Kato during the past year. He examined 44 collections of Teosinte (a total of 253 plants) derived from the states of Mexico, Guerrero, Michoacan, and Guanajuato. The information obtained is most revealing and certainly will be useful in considering the origins of maize germplasms. We now very much need to know the knob constitutions of the Teosintes of Guatemala. Kato will make the studies of this. He may be doing some of this during this summer.

A letter from Kato recently mentioned that he would be on the Faculty at Chapingo on his return to Mexico. He is quite aware that he and I alone must finish the knob report, and he wishes that we do this immediately after his degree is granted. Also--and this causes me some hesitation--he asks me quite politely, of course, to let him attempt to make conclusions from the data before I announce those I have made! We could discuss our conclusions subsequently. I am attempting to do this but the information is so intriguing that I fear the temptation to divulge my enthusiasm for its significance. Nevertheless, I will resist, I hope.

Dr. William L. Brown

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So much for my apology. You may take little satisfaction from it, but at least you are informed of my progress (?).

The very best wishes to you for a good summer.

Sincerely,

Barbara McClintock