



Department of Biology

August 24, 88

Dear Dr. Lontoff, thank you very much for your letter and for the article in the "Scientific American" which I read with great interest. I am glad that you liked the book - my return to an almost forgotten past. Maybe it will revive an interest in that exciting period, as your book did for Trembley.

You raise 2 questions which I think I can answer, or at least comment on. I was not aware of the experiment of Ethel B. Harvey (I know her quite well in Woods Hole in the 1940s and 50s). It is remarkable, indeed. But was she fully aware of its implications? You write that "she used pigment and non-pigmented forms... to prove that the grafted tissue 'organized' the neighboring tissues". Did she use the term "organized" in her discussion? At any rate, I doubt that she was fully aware of the implications of her work; otherwise she would have pursued this issue. When I knew her she worked on sea urchins, if I remember correctly.

Your comment reminds me of a story of Spemann, Herstedius and de Beer, in review articles had pointed out that Warren Lewis in 1906 or so had transplanted the upper lip in frogs and he should therefore be credited with the discovery of the "organizer". Spemann's comment, printed, I think, in his article with Gessing, was "that one can make a discovery with fecinity".



without intending it but not without noticing it".

Your other question, whether Spemann was influenced by Ethel Harvey can be answered with a definite no. The concept of the organization center was based on his homeoplastic transplantation of the upper lip, published in 1918, ~~and~~ in this experiment he observed the formation of an incomplete secondary axis, initiated by the transplant. This observation was all he needed to coin the term. When Hilde Pr. showed him the first secondary embryos, induced by the heteroplastic transplant, he called the latter an "organizer" in 1921. He has stated later in his book that the whole idea may have been carried subconsciously in his mind, — his mentor Boveri had discovered a "preferential region" in his experiments on sea urchins. I am quite sure that, though he may have read Ethel Harvey's reprint in 1909, this has not influenced his experiments and their interpretation in 1914-15 when the homeopl. experiments were done to explore the state of determination of the gastrula. I doubt very much that he connected the amphibian gastrula with Hydra in any meaningful way (He was never very partisan to Haeckel — on the contrary).

With my very best regards and thanks again

Yours Victor Hamburger