

February 4, 1973

Dear Woody and Steina,

The article "The Visual Cortex of the Brain" by David Hubel comes from Scientific American, Vol. 209, pages 54 - 62 (November, 1963.) My apologies if my proposal was left full of loose ends like not having a decent copy of the "Contour and Contrast" article (June, 1972?) to send.

I was in a state of confusion when I sent the proposal. Negotiations relative to a proposal for study of wind-power in Canada were at their hottest when I sent this proposal to you. I was afraid that the outcome of that proposal, in which I had been directly involved last summer, might present me with an unpleasant choice -- work under conditions that would threaten my own autonomy and tie me to an abominably mis-managed project, or an unpleasant refusal of my services, leading possibly to attempts at usurping my rights to patents that I am now trying to obtain on windmill devices. Fortunately, as I would view it, the Canadian proposal appears to be dead. That makes it easier for me to focus my attention on the proposal you are putting together.

If the possibilities for this proposal look good, then inquiry into equipment donations from industry seems needed. As I suggested in my previous letter, the work associated with the most significant portion of my proposal, involving boundary sensitive processing equipment, would be largely mechanical, and progress would be slow and expensive, if the proposed machine had to be built from scratch. With the donation of already built equipment requiring only modifications, I could progress much faster as a systems user and modifier.

I do not know if the submission of this proposal is a one-pass attempt -- submit, receive acceptance or rejection -- or a multistep communication with the foundation, in which ways and means are discussed and the proposal is modified. I hope the case is somewhat the latter. In that case, a conditional promise of foundation backing, provided that industry responds, ought to lend weight to an appeal to industry for help. If submission of the proposal is a one step process, then I am afraid I haven't been able to provide a satisfactory account of how I expect to complete the project.

Please let me know what is happening, and how I can help. I will be in Maryland this week until Thursday night, when I will be home. Friday evening I will leave again for Boston and return Monday. So I face a busy week. But then I expect to have more time, and could come to New York if that would be helpful. Thank you again for your efforts in my behalf, and let me offer apologies for those times when I have been slow to write and call and otherwise keep in touch.

Joe Seal

June 2, 1972

Dear Vasulkas,

I knew when I started that it would be hard to keep this short. I hope it is appropriate to your purposes. Sorry it took me until now to get it finished. Linda and I ended up going to Boston Tuesday and having to stay there a day before coming home, so it took me a long time to get started.

I intend to build a sync-stripper before I continue anything longer range. I would like to do a thing involving a feedback loop with tape time delay and my processing circuit. I will need at least one VTR, and I can get the second one to bring. I gether from talking to you that the 21st would be good. OK?

I'll be in touch. Please send me back a copy or the original of this paper since I have nothing but the rough draft with me.

Joe Lake

Dear Woody,

Here are some of my ideas about priorities for video work. Pages M1 through M8 describe the modules that I think ought to come first in setting up a flexible video processor with capability to work with multiple cameras, tape, color, and to interface with audio, analog, and digital equipment. Modules 0,1,2,5,6, and 8 would do all that the processor I now have can do, with the exception of two effects that would require a second copy of module 5. I need about \$700 to \$800 to get those modules designed and built (including two of #5,) and on a \$700 budget it would be a strain to pay for good components and spend the time to do a thorough design job. The other modules would be easy to build, relatively speaking, and they should be next in priority.

The S pages suggest standards we might adopt. I will be talking to some technicians about those standards in the near future. If you or your friends have any reactions, please let me know.

I didn't know exactly what would be appropriate as a proposal to try to attract funds. I have written and enclosed a short thing.

I will be in Dallas, Texas (214-351-4305) visiting until December 28, and then I will be back home in Greenfield. After that, I will try to get to New York before too long.

Sincerely,

Joe Seals

Dear Woody and Steina,

It could be a long, difficult project, but extremely rewarding. The boundary and feature recognition circuit described is to me by far the most interesting. But building two scan converters would be very wearing. Hughes aircraft company, electronics division, markets a complete scan conversion device that lists for \$4500. What I would need would involve two scan converters that could share much equipment like power supplies and deflection circuits. I know that the price on scan converters and scan conversion tubes is high largely because the devices, particularly the tubes, have had a high R&D cost, and so far a very specialized market. This means that a donation from Hughes might not be unlikely. What would be the most helpful in reducing my work to a tolerable level would be the donation of two complete scan converter devices, which I could modify with relative ease.

The proposal is perhaps a bit long. I wrote it expecting it would be edited down to a good size by someone who knows better than I what to leave out. If some of the philosophical stuff is out of line for the proposal, I at least hope that you enjoy reading it.

I will send a very brief note in another day or two, telling how to operate the octave lowering circuit. I think Michael Tchudin will want to play with it if he hasn't already. Other worries have taken priority so far.

I am enclosing a clipping from Scientific American, the article by David Hubel referenced in the report. Since reprints will probably be slow to get, this clipping will probably have to accompany the proposal. I also sent a photocopy of the article Contour and Contrast, which is the cover article from a Scientific American dating sometime last summer. If you know someone who subscribes to the magazine, just look at the covers and you will find the article. Then, if its a good enough friend, you can clip it out. The photocopy is no good, nor would a xerox copy do, because the pictures are important, and any loss of quality in reproduction makes the effects being pictured impossible to see. I will find the date on the Hubel article, which is sometime in the middle or early 1960's.

Joe