

STANFORD UNIVERSITY
STANFORD, CALIFORNIA 94305

DEPARTMENT OF MUSIC

September 11, 1985

Mr. Yasunori Mochida
Managing Director
Nippon Gakki Co., Ltd.
10-1 Nakazawa-cho
Hamamatsu-shi, Shizuoka-ken 430
Japan

Dear Mr. Mochida:

I returned to Stanford a week ago and I am very happy to be back. Although Paris is a very nice place to live, California is nice as well and it is especially good to be back at CCRMA. While I was away, John Pierce acted as director and he did a very fine job indeed. He sends you his regards.

My last three months in Paris were devoted to working on a book (Mr. Dambara calls it "the bible") on the theory and practice of FM with David Bristow. The idea is to both present the musically relevant technical aspects in a manner that is accessible to ordinary musicians and to provide a basis of understanding for other writers in the future. As you perhaps know, there is much being written about "X" series FM that is often irrelevant or worse, incorrect. My agreement with the Yamaha Foundation, who will publish the book, is that my share of any royalties will be retained by NGK as credit against which CCRMA can obtain equipment. Unlike David Bristow, I have a permanent position and my worry about the future of CCRMA will be very much relieved knowing that we will have access to such fine equipment.

In order to continue work on my piece for two TX816-KX88 based YCAM systems, it was suggested that I write to you to explain the equipment that I need (largely what I had at IRCAM), the physical and educational context in which it will be used and who will be responsible for the equipment.

We are now preparing to move from our current location to a lovely building overlooking the campus proper. In this building, called the Knoll, we will have a high quality digital recording studio and control room designed by George Augspurger (at Hiro Kato's suggestion). (I have decided that a large monolithic digital recorder such as Sony's is not what we need at Stanford as it is too inflexible for our purposes, we shall wait for a more modular approach to become available.) In addition to the recording studio, a room will be carefully prepared for the YCAM studio. While I will be the principle user of this studio, as you are aware, ours is an open laboratory which means that others in the CCRMA community will have access to the equipment. I personally believe this to be good, as the development of such equipment as

digital synthesizers, reverberators, etc., has become as important to art music as it is to commercial music. It is imperative, therefore, that the staff and students become aware of the ever increasing capabilities of this type of equipment. Access to the studio will be restricted to the CCRMA community by means of a cypher lock. I will be responsible for the equipment.

The only aspect of the equipment below which perhaps needs comment is the 24-channel mixing board. The sum of all audio channels where both synthesis and signal processing outputs are controlled from the board is greater than 16. Also, as the piece is for two TX816s-KX88s, having the 24-channel mixing board will allow me to borrow a second TX816 at certain times in order to hear the two "halves" of the piece together. And, of course, for the performance a 24-channel board is a necessity.

Synthesis and Control Equipment

- CX7 (with music software) or CX5 if 7 is unavailable
- QX1 (with new ROMS?)
- DX7 (when available)
- TX816
- RX11
- KX88
- YME8

Signal Processing and Audio Equipment

- REV7 x 2
- D1600 x 4
- P2200 x 2
- NS1000 x 4
- RM2408 with PW2400 power supply

(A REV1 would be wonderful for us to have at Stanford, however a high quality mixing board is more important at the moment.)

The YAMAHA studio at CCRMA will be in high demand for demonstrations as was the studio at IRCAM. It is one of my functions as Stanford faculty to show visitors to the university the work that is being done. The YAMAHA studio at CCRMA will undoubtedly be a "showcase".

For the support from NGK and YIC, I assure you that all development of voicing and compositional techniques done on the YAMAHA equipment will be made freely available. I also have expressed to John Gatts of YIC my willingness to give talks to dealer and user groups about FM synthesis as I have already done in France and England. The only cost would be my expenses.

Finally, I would like you to know that in early August, David Bristow and I gave Pierre Boulez a detailed explanation of the YAMAHA equipment at IRCAM. He was extraordinarily attentive and interested, to the extent that he decided on the spot to use some of the equipment in his next piece. Considering that Pierre is

Mr. Yasunori Mochida

Page 3

a major composer/conductor of our century and has very demanding "ears", I was pleased indeed. It is the first time that he has been captivated by commercially available synthesis and processing equipment (we had just received the REVI that morning) and I felt that it was a moment of some historical importance. Should you believe that Mr. Kawakami would like to know, please inform him for me.

I thank you for your consideration and I remain

Sincerely yours,



John Chowning
Professor of Music
Director, CCRMA

cc: John Gatts, YIC, Buena Park, California
Neils Reimers, Technology Licensing, Stanford University