## Babylonian Collection Yale University Library New Haven, Connecticut

November 14, 1951

Mr. Seton Lloyd İngiliz Arkeoloji Enstitüsü Bayındir Sokak 85 Ankara, Turkey.

Dear Mr. Lloyd!

My colleague, Professor Goetze, has asked me to write you regarding the heat treatment of cuneifform tablets. Professor Goetze was in Ankara last summer, and learned of the extraordinary discovery of literary texts similar to these of the library of Ashurbanipal. He informs me that the Museum authorities at Ankara will wish to treat these tablets by a heating process, in order to preapre them for study. He believes that you will be good enough to transmit to the proper authorities the information given below. We offer the information because of our interest in and appreciation of the value of the tablets. We hope it may be found useful in carige for them.

The schedule for firing cuneiform tablets given below has been worked out, through practical experience in the Yale Babylonian Collection, over a period of twenty-five years. Subject to the conditions about to be mentioned, we believe entirely satisfactory results will be obtained, if this schedule is followed rigidly. The furnace used must be capable of producing heat as rapidly, or preferably more rapidly, than the schedule requires. It must be equipped with a controlling device which will positive ly regulate the heat at the will of the operator, whithin limitsof accura= cy of 10 to 20 degrees. The furnace must be capable of retaining its heat after the source is shut off, so that it will return to room temperature no sooner than twenty-four hours later and preferably forty-eight hours later. The tablets should be placed on open trays made of heat resisting wire woven so that air can circulate through the meshes of the weaving thus keeping the tablets in circulating air. An alloy of nickel and cheomium is suitable for the wire, though an ordinary steel wire will serve the purpose for a few bakings. The rate of oxidation with steel wire is so rapid that it will become brittle and disintergrate in a relatively short time. If more than one layer of tablets is placed in the heating chamber at one time, the upper layer should be supported by a heat resisting metal frame which presents the minimum obstruction to the free circulation of air in the chamber. No tablets should be placed in contact with nor in immediate proximity to the source of heat. The schedule must be carried throughout the ten-hour period without interruption.

Bring temperature gradually from room temperature to 200 degrees Fahrenheit in 30 minutes.

```
Fahrenheit in 30 minutes.

Hold at 200 degrees 2 hours with furnace door open
" " 220 " 20 minutes
               250
                                    25 20
    11
          11
                            ==
                            11.
    11
          11
               300
                            11
    11
          11
               350
                                     25
                                                        then close furnace door
    11
          11
               400
                            11
                                    20
                                             11
          11
                            11
                                             11
   11
               450
                                    15
                                    10
   11
          11
               500
                            11
                                             11
                                    15 15 10
               550
    11
          11
                            11
                                             11
    11
                            11
                                             11
                            11
    11
          11
                                             11
               650
   11
               700
750
800
          11
                            11
                                             Ħ
                                    15
    11
          11
                            11
                                    15
                                             11
   11
          11
                            11
                                             11
                                    10
                            11
   11
          11
                                    15
                                             11
               850
    11
          11
                            11
               900
                                    10
             950
          11
                            11
                                    10
   11
          11
                            11
                                    20
   11
                            11
                                             11
          11
             1050
                                     20
    11
          " 1100
                            11
                                    15
          " 1150
   11
                            11
                                    20
   11
          " 1200
                            11
                                             11
                                    20
          " 1250 " 1300
                                    15
   11
                            11
                                             11
    11
                            11
                                             11
          " 1350
                                    15
          " 1400
    11
                            11
                                             11
                                    45
```

Turn off electricity and leave furnace door closed until heat returns to room temperature.

Yours sincerely,

Ferris J. Stephens, Curator.