## AGAIN: A SIMPLE MEANS FOR INPUT AND OUTPUT OF GREEK TEXTS ON A SMALL IBM 1130 OUTFIT

This is to replace and to make obsolete my previous note in this periodical.

- Reasons: 1. In the meantime the keypunch IBM 29 and similar devices with their increased characterset have become widespread.
  - 2. We have acquired a selectric ball that contains all the symbols needed for the representation of ancient Greek.

The graph shows the assignment of Greek characters and special signs to the keys of the 29 keypunch. We thought it convenient for less trained typists to choose from not too many keys. Therefore we wrote an Assembler program that accepts two different inputs and yields one and the same output, for instance:

The word 
$$a\rho a$$
 is punched either I\$ ARA or  $$2$  ARA

The trained typist presses the key with the combination of spiritus and accentus, the untrained one takes the small trouble of pressing two keys but need not remember or look around where to find the six combinations.

Backspacing after spiritus, accentus or combinations, trema or iota mutum is done automatically. Capital letters are requested by \*. The following order must be observed:

1. Spiritus.

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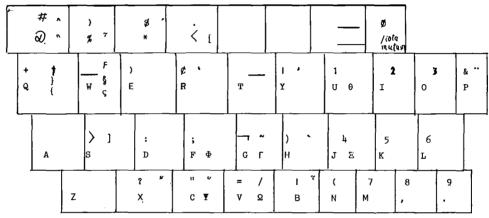
- 2. Accentus, iota mutum, trema, combination.
- 3. \* for capital letters.
- 4. Letter.

The punching of single signs instead of combinations has the additional advantage that cheap devices with a small characterset like teletypes can also be applied.

The above mentioned selectric ball is sold by Camwil Inc. 835 Keeaumoku-Street, Honolulu, Hawaii 96814. It is certainly useful but could be more so if the keys having combinations of spiritus and accentus were free for other purposes. It would be neither new nor ugly to write like this  $\frac{\partial}{\partial t} \kappa \frac{\partial t}{\partial t} \pi a$   $\frac{\partial t}{\partial t} \Delta \phi a$ , that means, the spiritus always has its place above the left half of the character, acutus and gravis above the right half. Many users should discuss and design a new form of ball and share the expenses for the prototype. Copies of it would be cheap.

It is still troublesome to write an apparatus criticus with many changes from Greek to Latin within one line. We plan to write a program in Assembler that accepts two additional signals: 1. Shift to Greek 2. Shift to Latin. Records with mixed texts are read, the contents placed into two different output areas, one for Greek, one for Latin. The IBM prints first the Greek, then the Latin one, leaving blank first the Latin, then the Greek section without line feed. So the ball has to be changed only once for one line.

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Kèyboard of IBM 29 Keypunch (self explaining

Greek equivalents omitted)

Those who have tried, will know what that means. Those who are interested please ask for a copy of the program.

I am obliged to Mr. WEISS, Computer Dpt. of the Seminary for Economics, for valuable assistance.

GÖTTINGEN

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