

The Hittite Computer Analysis Project

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The use of electronic data-processing devices for research in the fields of linguistics and philology is by now fairly common. One project carried out at The University of Chicago was aimed at using a computer for a linguistic analysis of a segment of the Hittite language. After preparations that extended over several years some significant results have now been obtained.

While funds for programming and actual computer time were provided by the Division of the Humanities from its Linguistic Research budget, the Oriental Institute secured the help of Professor Philo H. J. Houwink ten Cate of the University of Amsterdam, who spent the year of 1965 here as Research Associate. He assisted Dr. Güterbock in preparing the Hittite texts for the computer and in working out technical details with the programmer, Mr. Robert Ekstrom. After his return to the Netherlands, Dr. Houwink ten Cate continued his co-operation. With a grant from the American Council of Learned Societies he came back to Chicago for three months in the summer of 1966, and in 1967 he volunteered to devote a few weeks before and after the International Congress of Orientalists (held at Ann Arbor in August) to putting the last touches to the program. In the fall of 1967, then, the following results were available:

The entire corpus of the Old Hittite texts (dating from the 17th and 16th centuries B.C.) had been analyzed in the form of three sets of print-out:

1. A concordance which offers a meaningful context for every lexical item.
2. A concordance of grammatical forms.
3. A listing of all spelling peculiarities.

The last item may conceivably be of significance for the phonology of the language, such as double writing of consonants between vowels,

addition of vowel signs to syllables containing the same vowel, or clashing of different vowels.

Included for comparison are some texts of the Middle Hittite period (about the 15th century B.C.), and the inclusion of selected texts of the New Kingdom (14th and 13th centuries B.C.) is planned.

The evaluation of the material assembled in this print-out will be undertaken in close cooperation between Professors Güterbock and Houwink ten Cate, and for this purpose a duplicate set is kept at the University of Amsterdam. A grammar of the Old Hittite language based on this material is being planned.