## THE HITTITE DICTIONARY

Harry Hoffner, Jr.

n the summer of 1990 Dr. Theo van den Hout left us to return to Amsterdam. He was replaced on our staff by Dr. Silvia Luraghi from Torino, Italy. Silvia received her doctorate from the University of Pavia, Italy, where she was a student of Professor Onofrio Carruba. During earlier stages of her doctoral program she studied at Yale (Professors Cowgill and Beckman) and Bochum, Germany (Professor Neu). Her particular strength is theoretical and comparative linguistics, which she is applying to the writing of several dictionary articles on words of a primarily grammatical interest. One of these is the Old Hittite sentence conjunction su. Hittite has several such conjunctions. The most common is nu, but there is also ta and the enclitics -ya and -ma. Most of these can either be translated "and" or left untranslated. -ma has a contrastive function, which often makes "but" an appropriate translation. Silvia has written a book which includes a discussion of the Old Hittite conjunctions (Old Hittite Sentence Structure, edited by J. Hawkins, in the series Theoretical Linguistics. [London: Routledge, 1990]). We are glad to have her working on the project.

Luraghi's predecessor, Theo van den Hout, did an outstanding job of processing newly published Hittite texts. During his two-year tenure here he concentrated on those which appeared in the Berlin series *Keilschrifturkunde aus Boğazköi*, volumes 56-58. According to our usual practice, when staff members prepare transliterations of new texts, they also use our files to identify possible joins or duplicates, which are then integrated into the new dictionary transliteration. Although Theo copied his transliterations of *KUB* 56-57 onto dictionary master cards for duplication and filing, he did not have time to do this for *KUB* 58, the transliterations of which he left behind him. During the fall of 1990 graduate assistant Ann Porter entered these into the project computer, and the hard copy generated by the computer on file cards was filed by Joseph Baruffi.

We are continuing to process new texts in the form of file cards for our main dictionary files in addition to putting the texts into computers for electronic retrieval. This involves some extra work over simply freezing the traditional file in its current capacity and switching entirely to electronic retrieval, but very little. Since the cards are now generated from a computer, the computer file serves both purposes; only one text entry is necessary. The minimal extra work is in the physical alphabetizing and filing of the cards. It is our experience that for some phases of the dictionary work — am I really saying this? — it is easier to have the data on file cards which can be viewed simultaneously and manipulated in many ways which are not impossible, but rather complex to learn on a computer. We like to think that we are acting in the spirit of the Institute, which combines ancient subject matter with modern techniques.

When Silvia arrived, we wanted her to gain experience in the kind of work Theo had been doing. During her first half year here she entered the texts of KUB 59 into the computer, identifying whatever duplicates she could. The generated hard copy was again filed into the CHD file cabinets by Joseph Baruffi.

During the last six months we have changed Silvia's assignment to allow her to work in her area of expertise. During this time she has completed draft articles on the Old Hittite conjunction su "and", the pronoun —si "to him, her", a somewhat routine noun suel "thread, cord", and has begun a long article on the pronoun —smas "to you (plural), to them".

Dr. Rich Beal has been very busy doing important project work. Rich has had years of experience on the project, which enables him to perform a wide variety of tasks quite efficiently and skillfully. He spent the late summer and fall of 1990 and the winter of 1991 writing first drafts of dictionary articles. In all he has written almost thirty articles during the past twelve months. Among others he wrote the long article on "beer" (Hittite siessar), a long and complex article on the verb "to libate, make an offering" (Hittite sipand—, linguistically related to Greek spendomai), several articles on words relating to irrigation, and recently began the monstrously long article on the word for "god" (Hittite siu—). This should make quite a Hittite theologian of him! When Silvia needed a break from processing the new texts, Rich cheerfully moved over into that task and has entered almost all of KUB 60 into the computer.

Rich's dissertation, which is soon to be published in Annelies Kammenhuber's series *Texte der Hethiter* ("Texts of the Hittites"), concerned the organization of the Hittite military, a daunting task. Somehow he had to discover the hierachy of the many ranks and titles scattered throughout the corpus of texts. Part of the crucial evidence which allowed him to determine what officers were superior to others came from address formulae in letters found in the 1970s at Maşat Höyük in Turkey. While Rich was writing his dissertation some of these texts were being released in transliteration by Sedat Alp. Finally, in July 1991 the official publication of cuneiform copies, transliterations, translations, and commentary has appeared in two large volumes by Professor Alp. About half of these texts, which had not been previously released in transliteration, needed to be entered in the CHD lexical files. Those which had been published in transliteration alone now needed to be checked against the cuneiform copies and corrected. Rich has been doing that for the past month.

We are particularly excited by the new Masat texts, because they are yielding some unexpected new information. In the early 1970s I was writing a book on food production among the Hittites (Alimenta Hethaeorum, American Oriental Series 55, New Haven: American Oriental Society, 1974). One of the most common Hittite cereal types was represented by the Sumerogram ZÍZ, which normally has the Akkadian reading kunašu. The older translation of this word "spelt" had been abandoned by Assyriologists in favor of "emmer (wheat)" (see CAD K 536). Did it denote emmer in the Hittite texts as well? As I was discussing the matter with Professor Hans Güterbock, the two of us agreed that, since ZÍZ in Hittite texts represented the most common variety of the wheats, and the recovered cereal remains from Turkish Late Bronze Age sites showed ordinary bread wheat as more commonly used than emmer, we should either identify ZÍZ as the generic term for "wheat" or as the specific term for "bread wheat." Some of our colleagues did not follow Alimenta Hethaeorum in this view. But now a new list of cereals from Maşat Höyük shows side-by-side entries for ZÍZ and kunašu indicating that they were two different cereals at Boğazköy.

What have the senior staff been up to in the meantime? Professor Güterbock and I, as usual, have had our hands full, revising and editing first drafts into final dictionary form. This can be tedious work, but it need not be. The joy of discovery is what makes the difference. Of course, there is a pronounced time lag between the writing of first drafts and the revision into final draft. What Hans and I were revising this past year were articles written several years ago by an earlier generation of junior staff. Many of the articles we edited during the second half of 1990 were in fact begun in the early 1980s by Dr. Silvin Košak, whom some of you may remember. The time lag makes it necessary for us to check for newer occurrences of the words in question, which our filing system easily allows us to do. In mid-summer of 1990 the senior editors were working on Hittite words beginning with the syllable par. As of mid-summer of 1991 we are about finished with words beginning with pu and ready to start with sa. I should explain to you that in Hittite there is no Q, and no words begin with R; so our dictionary jumps from pu to sa.

When the first volume of the *CHD* appeared, there were many reviews. As successive fascicles appear, the number of reviews decreases. The most recent one, by two of our German colleagues, V. Haas and J. Klinger, has again raised a

very important issue. Hittitologists today are quite concerned with text dating. There are two dates which are significant for each cuneiform text: (1) the date when that particular clay tablet was physically inscribed (i.e., the copy date), and (2) the date when the text on the tablet was composed. Various formats are used by Hittitologists to express these two dates concisely. The *CHD* has chosen to show the composition date as OH (Old Hittite), MH (Middle Hittite), or NH (New Hittite), followed by the copy date OS (Old Hittite Script), MS (Middle Hittite Script), or NS (New Hittite Script). The notation "OH/NS" means a text probably composed in the Old Hittite period, but existing in a copy showing New Hittite script and therefore dating from the New Kingdom.

Hittitologists determine the copy date by distinctive individual sign shapes, by the uniform character of the writing as a whole (what is sometimes called "ductus"), and by the overall physical disposition of the text on the tablet. Some texts copied in the Old Hittite period, for example, begin the first line on the upper edge of the tablet and begin each line much closer to the left edge of the tablet. The date of composition is much more difficult to determine. Estimates arise from a combination of factors: archaic vocabulary or grammar, or archaic spellings of words. Certain conjunctions like *su* do not occur after the Old Hittite period. Neither does the characteristic Old Hittite particle –*apa*. There is

Phonetic Value	Old Script (OS)	Middle Script (MS)	New Script (NS)
ag	堆饰	H	碰
ar	यमाप	A PIR	<b>STAIN</b>
az	烩	焙焙	哈第
da	阿阿	图图	图図
e	牌子	母母	奸
har	45	4	雄雄
ib	M	FIT	IFI
li	数灯	经时	发体
me, ši, wa	平平子	下平年	下平纸
pal	14年	外套	好
tar	秋中	冲吹	*
URU	百	戶	角

Samples of Diagnostic Sign Forms

broad agreement among Hittitologists on most of these archaic features. But not everyone in the field has invested the time it takes to record the grammatical characteristics of each composition or the palaeographic characteristics of each clay tablet. In consequence the rank and file scholar "follows" some prominent scholar or his/her "school." One follows Otten and Neu, or Kammenhuber. What is obviously needed is a wider familiarity with the hard and particular evidence. The CHD staff does not have the time to plunge into a separate publishing venture to produce such volumes of tabular evidence. But we must have our own objective data available to staff writers on which dictionary decisions about dating are based. We are in the process of developing this. At present its rudimentary form is file cards in my personal retrieval system. What I hope it will develop into is a computer database. The composition database at present requires no graphics; all relevant data can be reduced to transliteration. This is not the case with the copy database. Here we are dealing with sign forms which can vary very subtly from each other. To reduce these to a transliterated "code" would require very tough (and perhaps in some cases too arbitrary) decisions. The present form of that database is boxes of photocopies of master cards. Each master card represents a tablet. On it I have copied all of the significant sign forms and other graphic features which occur together with the location on the tablet. When a user retrieves a given card on which a particular form of the "da" sign occurs, (s)he can immediately see all of the other significant sign forms on the same card. This tool has been extremely helpful to me in developing my views on text dating.

We have continued to benefit from the contributions of Institute volunteer Irv Diamond, who aids us mightily in computer applications. Over the past two years we have scanned into the computer all of the earlier volumes of the dictionary which were never keyed in. Irv then devised a database which allowed us to generate a printed index of all text citations in the dictionary together with their location in the dictionary and the date which we assigned to them. This has proven to be an extremely valuable tool. Theo van den Hout even took a prototype copy with him to the Netherlands. Irv is now working on a new database which will extract from the dictionary all grammatical categories and print them in list form. We continue to work on a simple and reliable method of automatically checking dictionary copy for errors in dating. Presently, this must be done manually, although with the aid of Irv's text citation index it is much easier than before.